









QL 45 R52X 1877

THE MUSEUM

OF

NATURAL HISTORY

BEING A POPULAR ACCOUNT OF THE STRUCTURE, HABITS, AND CLASSIFICATION OF THE VARIOUS DEPARTMENTS OF

THE ANIMAL KINGDOM

Quadrupeds, Birds, Reptiles, Fishes, Shells, and Insects

INCLUDING THE INSECTS DESTRUCTIVE TO AGRICULTURE.

. :

SIR JOHN BICHARDSON, C.B., F.R.S. Lond., Hon. F.R.S. Edin.

Author of the Fauna Boreali Americana; Arctic Search after Sir John Franklin.

WILLIAM S. DALLAS, F.L.S., AND T. SPENCER COBBOLD, M.D., F.L.S.

ASSISTED BY

WILLIAM BAIRD, M.D., F.L.S., AND ADAM WHITE, Esq. CURATORS IN THE ZOOLOGICAL DEPARTMENT OF THE BRITISH MUSEUM.

WITH A

HISTORY OF THE AMERICAN FAUNA

ву

JOSEPH B. HOLDER, M.D.

FELLOW OF THE NEW YORK ACADEMY OF SCIENCES, ETC.; ASSISTANT SUPERINTENDENT AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK.

VOL. IV.

Plates only

NEW YORK
JAMES S. VIRTUE

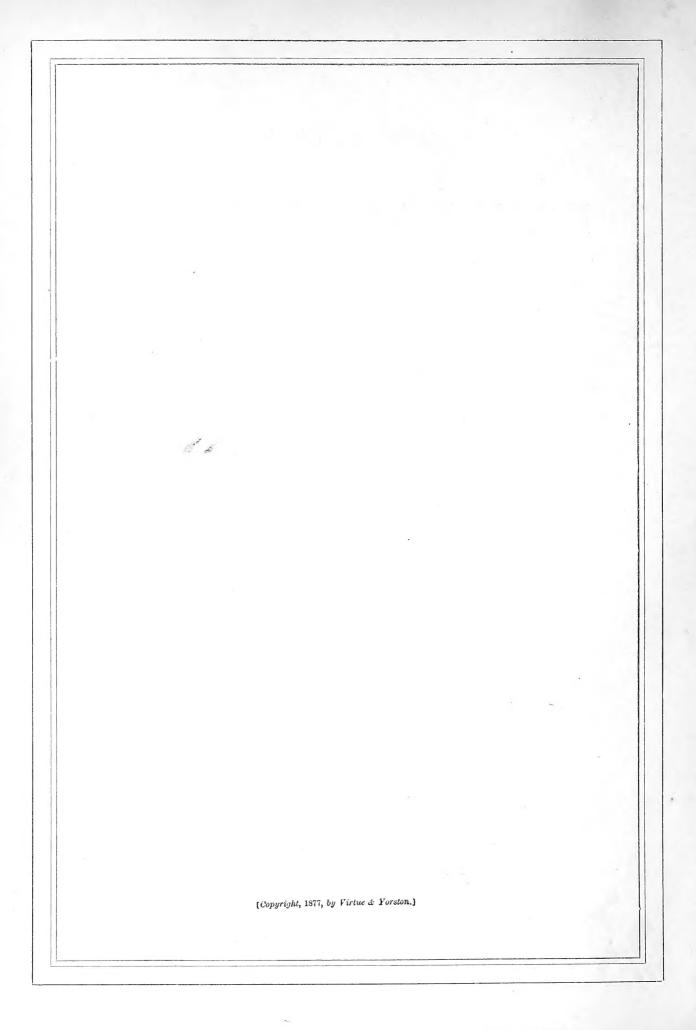
12 DEY STREET.

(c 1877)

SMITHSONIAN

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LIERARIES



Family. Simadæ.

Order. Quadrumana.

W. Larvatus . Probosas Monkey.

Simia Satyrus. Ourang Outan.

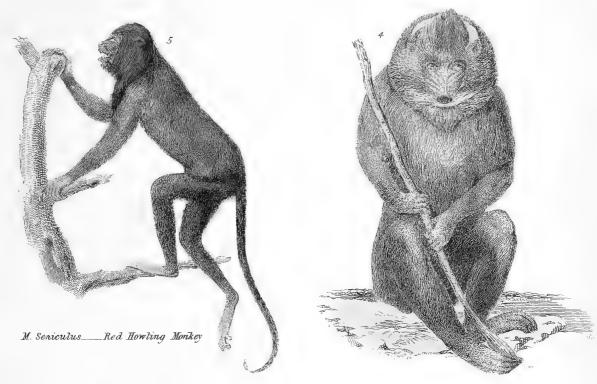


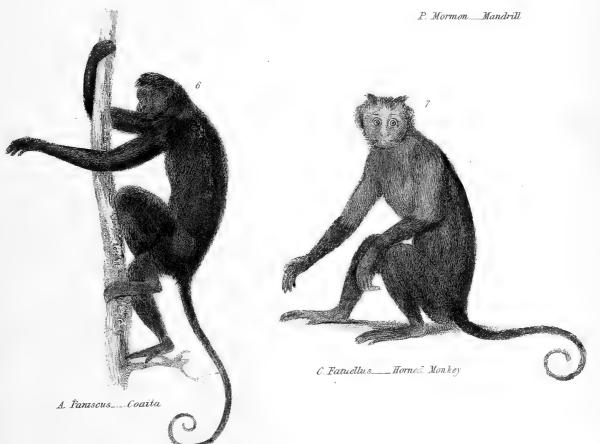
Iroglodytes Gorilla. Gorilla.

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Order Quadrumana.

Genera Papio, Mycetes, Ateles, Cebus. Families $\left\{ egin{array}{ll} {
m Simiad} lpha \ {
m Cebid} lpha \end{array}
ight.$





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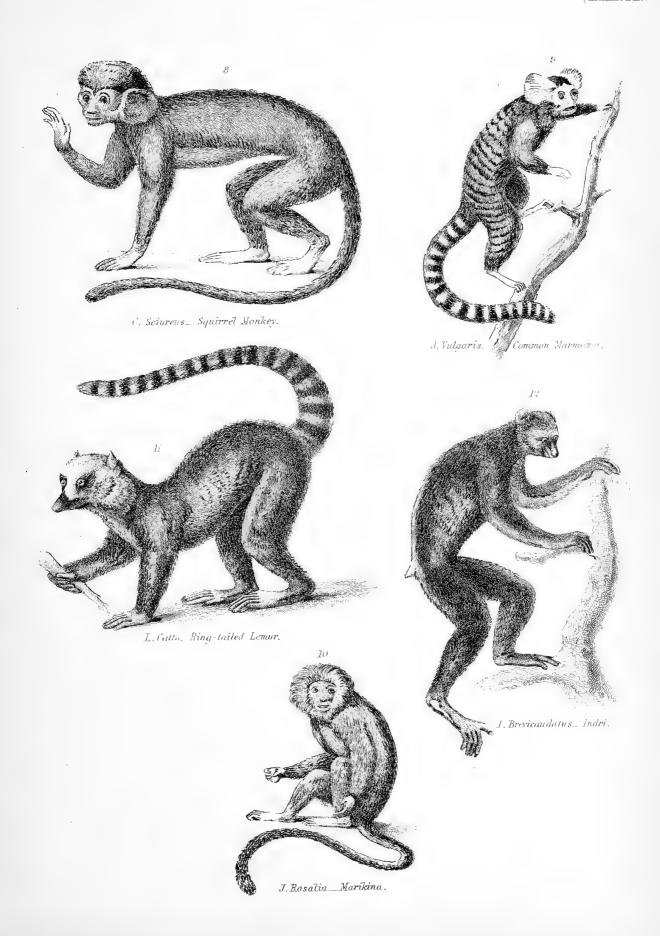
Genera, Callithrix, Jacobus, Lemur. Indris.

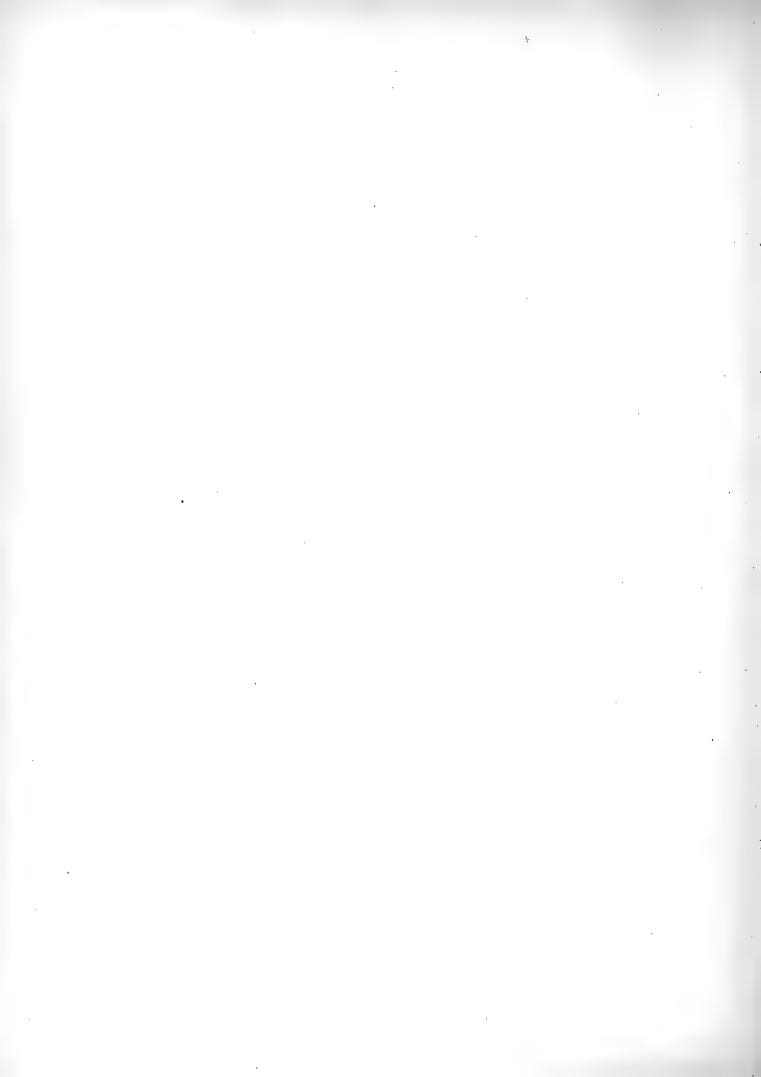
t'ebidæ.

Families Hapalidæ.

Lemuridæ.

Lichanotidæ.





Genera, Loris, Galago, Tarsius, Galeopitheous

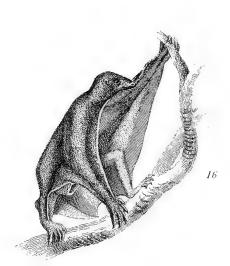
Families. Nveticebide. Tarsiide. Galcopithecide.



Galago Senegalensis. Senegal Galago.



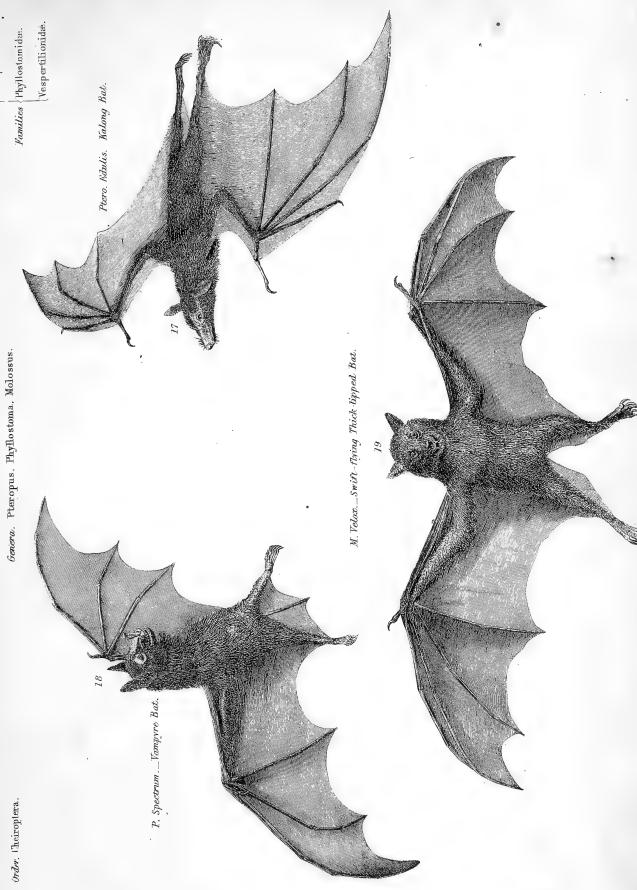
I. Spectrum, Tarsier.



Galeopithecus Volans, Flying Lemur.

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Pteropida.



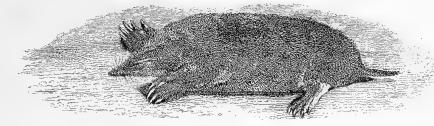


Orders { Insectivora. Carnivora.

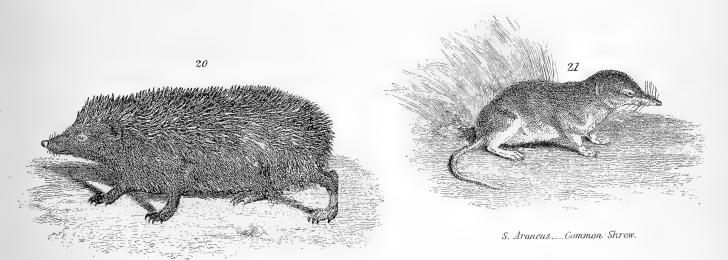
Genera. Erinaceus. Sorex. Talpa. Canis. 22

L'amilies.

Erinaceadæ. Soricidæ. Talpidæ. Canidæ.



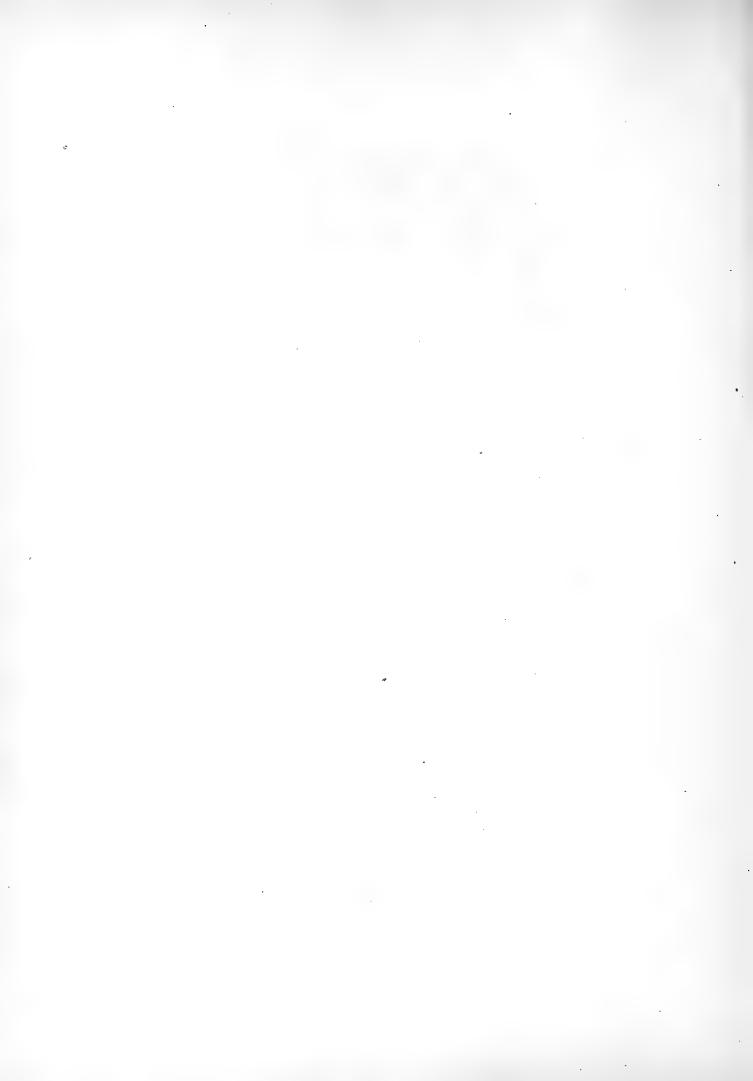
T. Europæa. _ Common Mole.



E. Europæas. _ Common Hedgehog.



Canis lupus. (Var. Familiaris) __Thibet Dog.



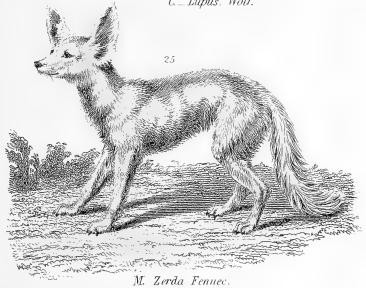
Order. Carnivora.

Genera. Canis Megalotis Vulpes





C._ Lupus. Wolf.



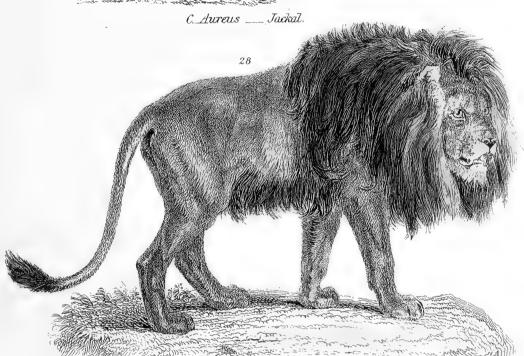


V. Vulgaris. Common Fox

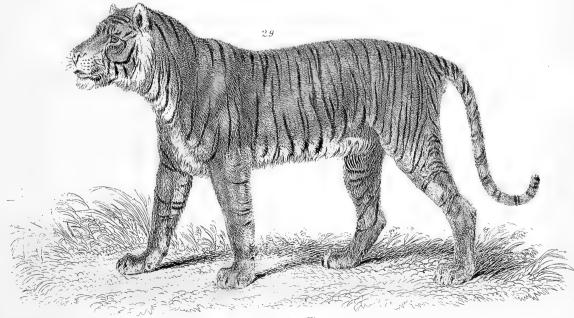
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 $Families \left\{ egin{array}{l} {
m Canidæ.} \\ {
m Felidæ.} \end{array} \right.$

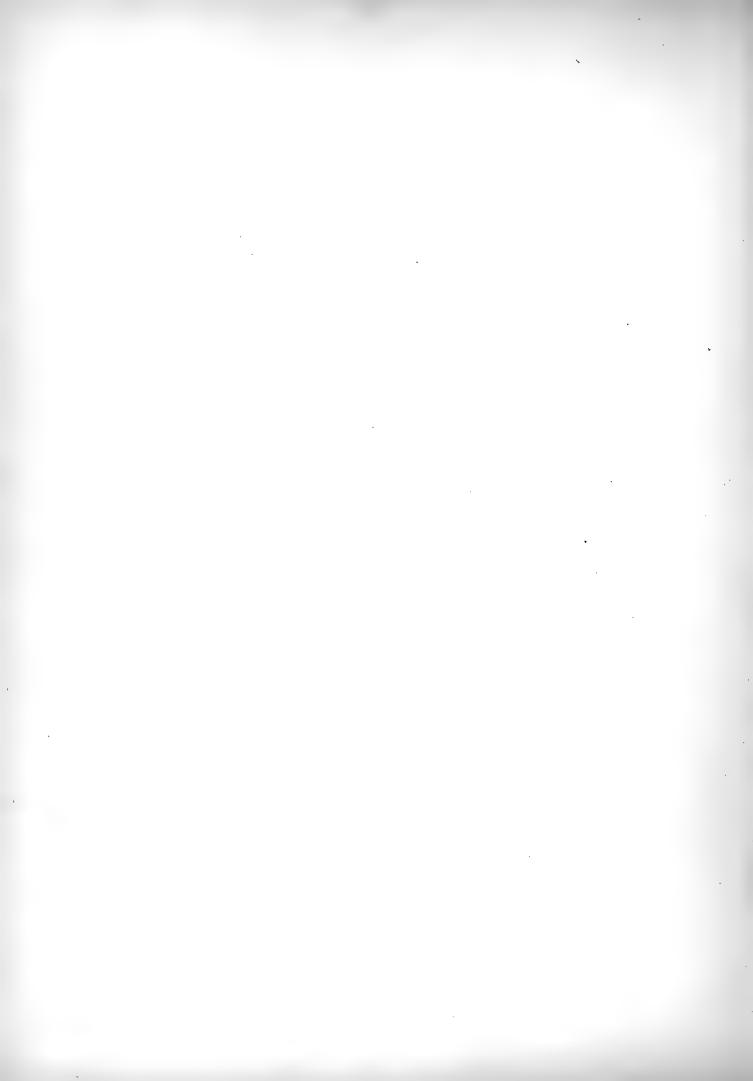








F._ Tigris. Tiger.



Order Carnivora



H. Striata ____Striped Hyæna



V. Civetta _ . African Civet



H. Ichneumon ___ Egyptian Ichneumon

2 miles in

Genera, Mephitis, Martes, Lutra.

Family. Mustelidæ.



Mephitis americana._ Skunk.



Martes abietum. _ Pine Martin.



 $Iutra\ Vulgaris._\ Otter.$

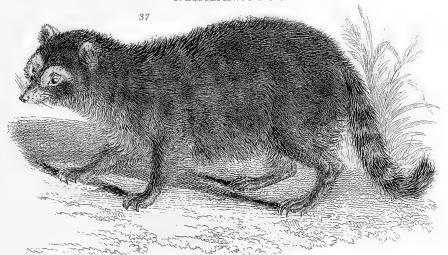


Order, Carnivora.

Genera, Gulo. Procyon. Nasua.

 $Families \begin{cases} {\tt Ursidæ.} \\ {\tt Melidæ} \end{cases}$







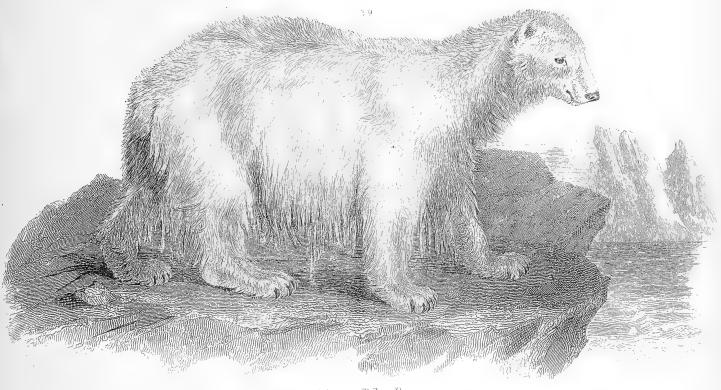
N. Narica _ Brown Coatimondi.

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Order. Carnivora.

Genera. Ursis.

Family, Ursidæ.

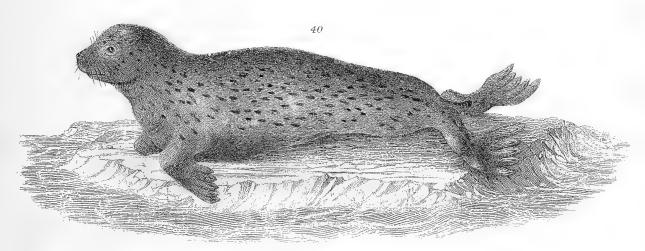


U. Maritimus. Polar Bear.

Order. Pinnipedia.

Genera. Phoca.

Family. Phocidæ.



P. Titulina., Common Seal.

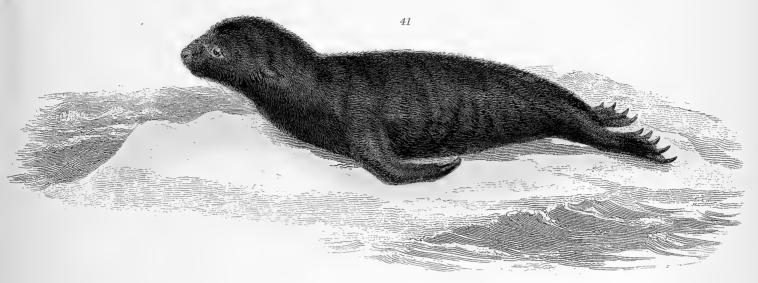


Order. Pinnipedia

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Genera. Trichecus. Arctocephalus.

Panulies Procide.



A. Ursunus, _ Sea Bear.



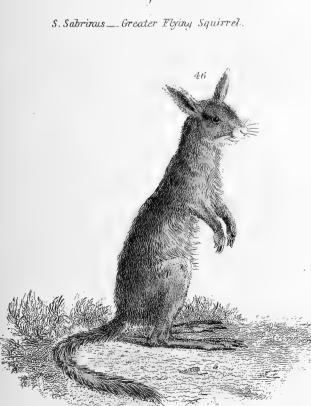
T. Rosinarus. _ Arctic Walrus or Morse.

Order. Rodentia.

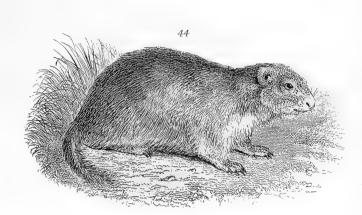
Genera, Sciuropterus, Arctomys, Dipus, Helamys.

Sciuridæ. **Families** Dipodidæ.





Hel. Capensis._ Cope Jerboa.



A. Marmotta._ Alpine Marmot.





Order, Rodentia.

Genera, Myoxus, Mus, Myodus, Castor.

Families

Myoxidæ. Muridæ. Arvicolidæ. Castoridæ.



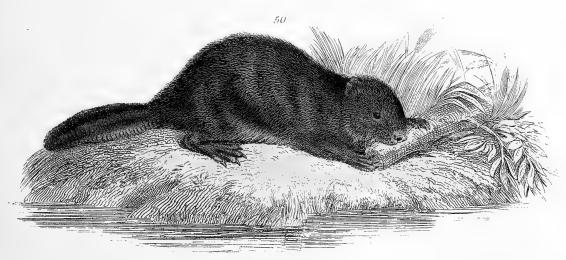
My Avellanarius ___ Dormouse



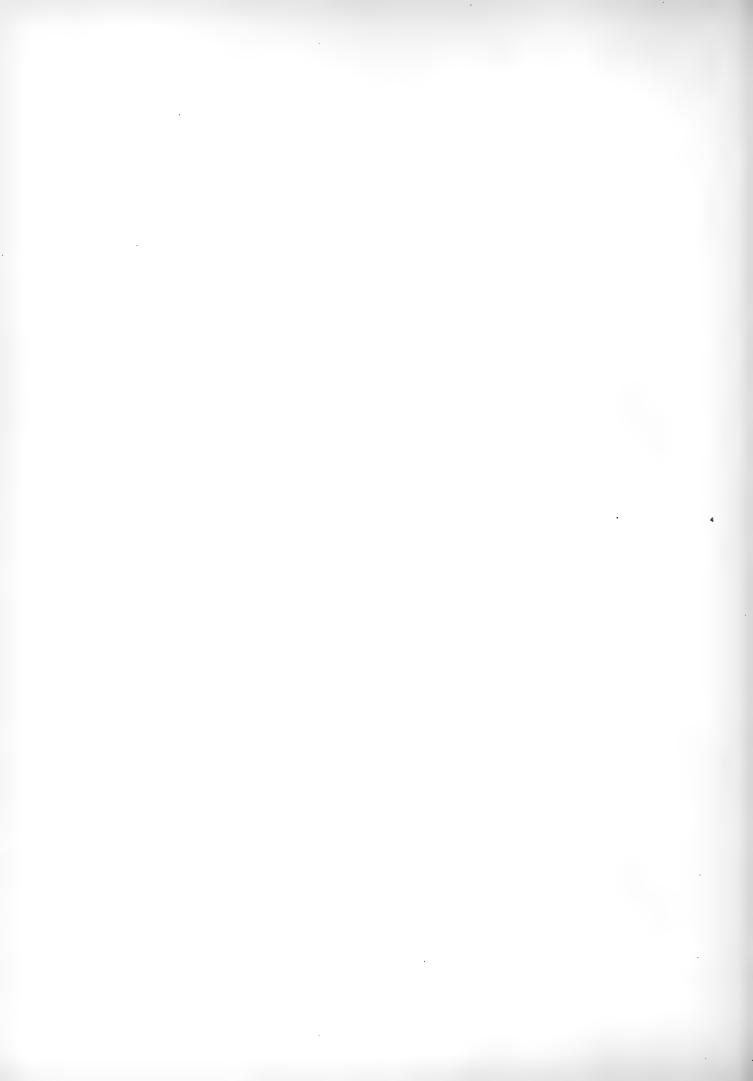
Mus. Rattus, ___ Black Rat



Myods Greenlandicus ._ Greenland Lemming.



C. Fiber, ___ Common Beaver



Order, Rodentia.

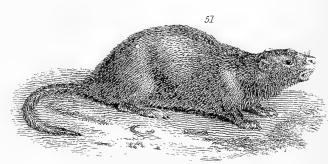
Genera, Myopotamus, Hystrix, Lepus, Lagomys.

Families Castoridæ.
Hystricidæ.
Leporidæ.



Lag. Pusillus.___Calling Hare.





Myopots Coypus._Coypu.



H. Cristata.__Common Porcupine.



Order Edentata.



D Peba_Peba.

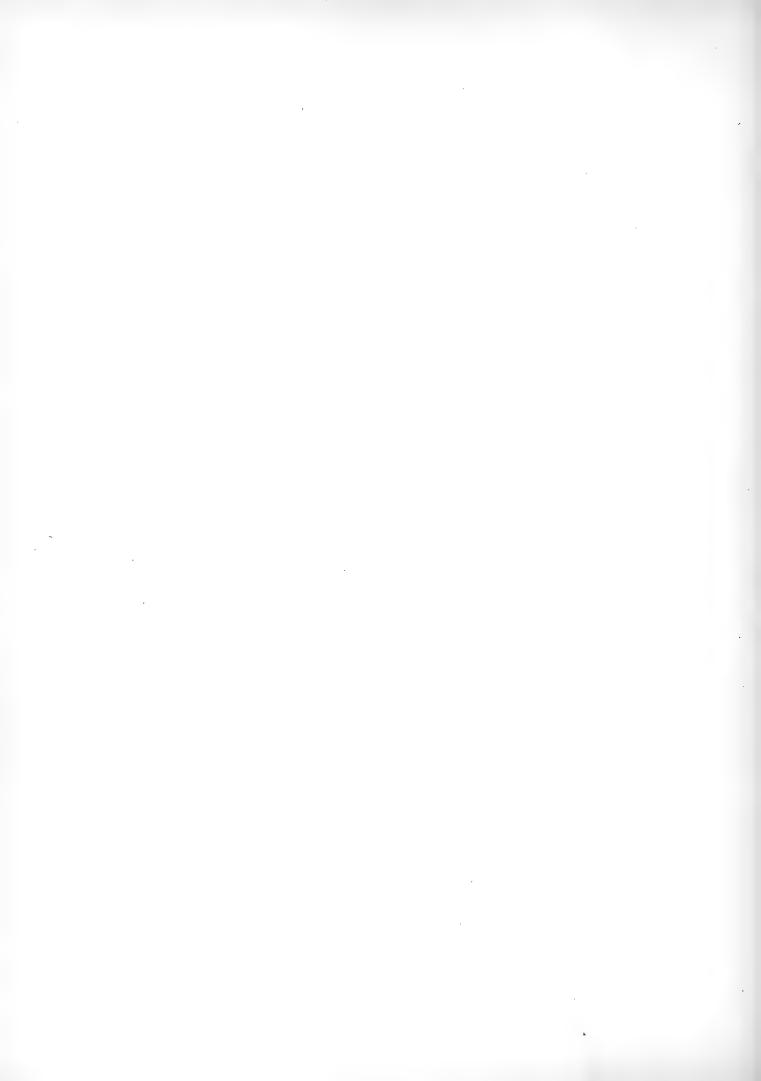


Myr. Tubata _____ Great Ant-eater.

B. Tridactylus Three-toed Sloth.



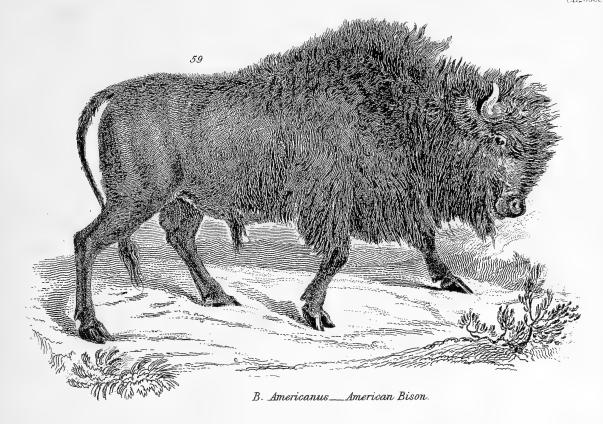
M. Tetradactyla_Long-tailed Pangolin.

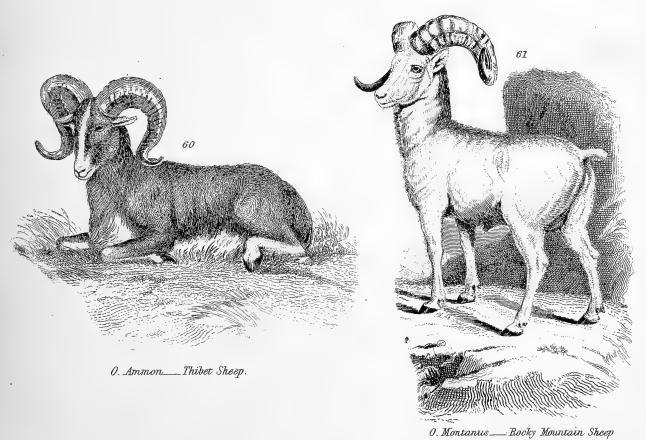


Order Ruminantia.

Genera. Bonassus, Ovis.

Families (Bovidæ Egosceridæ





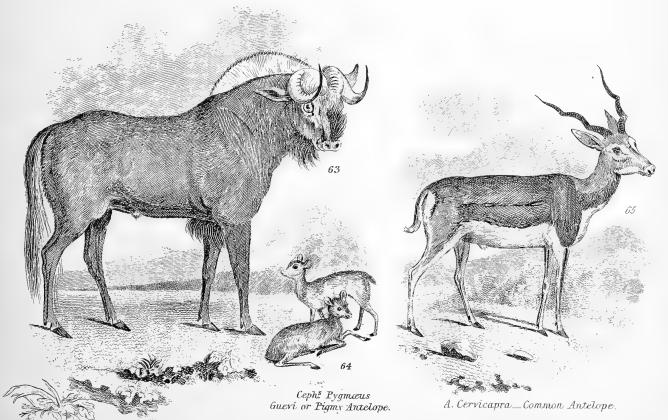
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Order: Ruminantia.

Genera, Capra, Catoblepas, Cephalolophus, Antilope.

 $Families \begin{cases} \texttt{Agoscevidæ}, \\ \texttt{Antilopidæ}. \end{cases}$



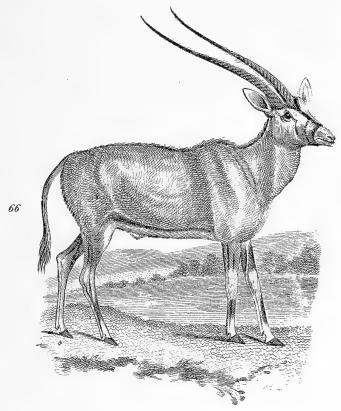


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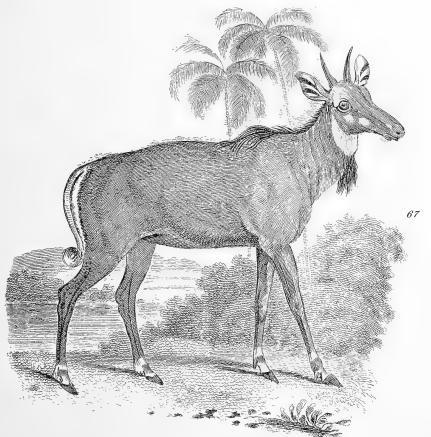
Order Ruminantia

Genera Antilope Portex.

Family Antilopidæ



A. Leucoryx_Leucoryx.



P. picta_Nyl Ghau.



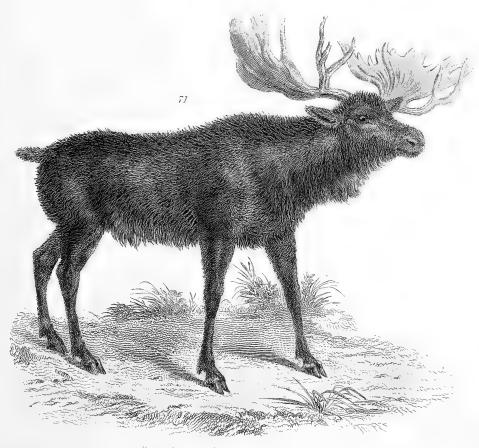
Order. Ruminantia.

Genera. Capræolus. Alces.

Family. Cervidæ.



Caps Dorcas ... Rnebuck .



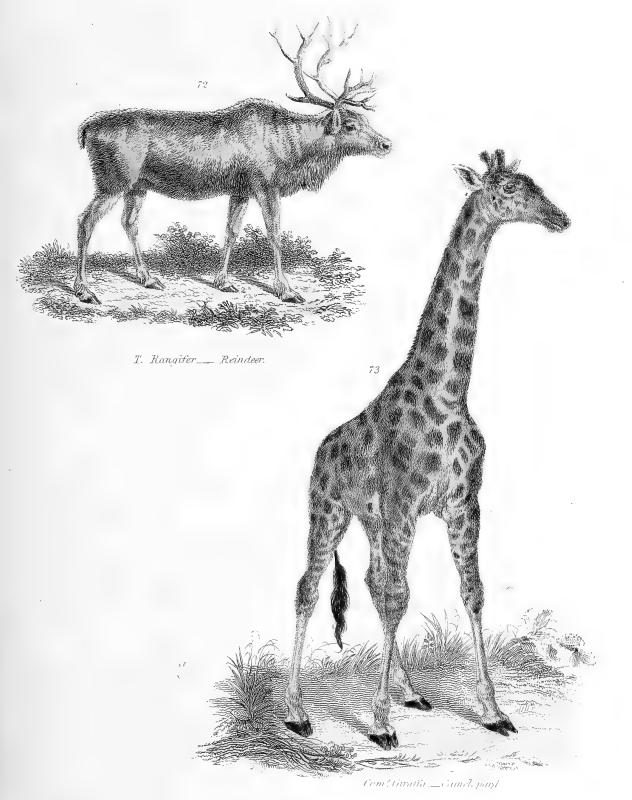
A. Malchis _ Elk or Moose - Deer.



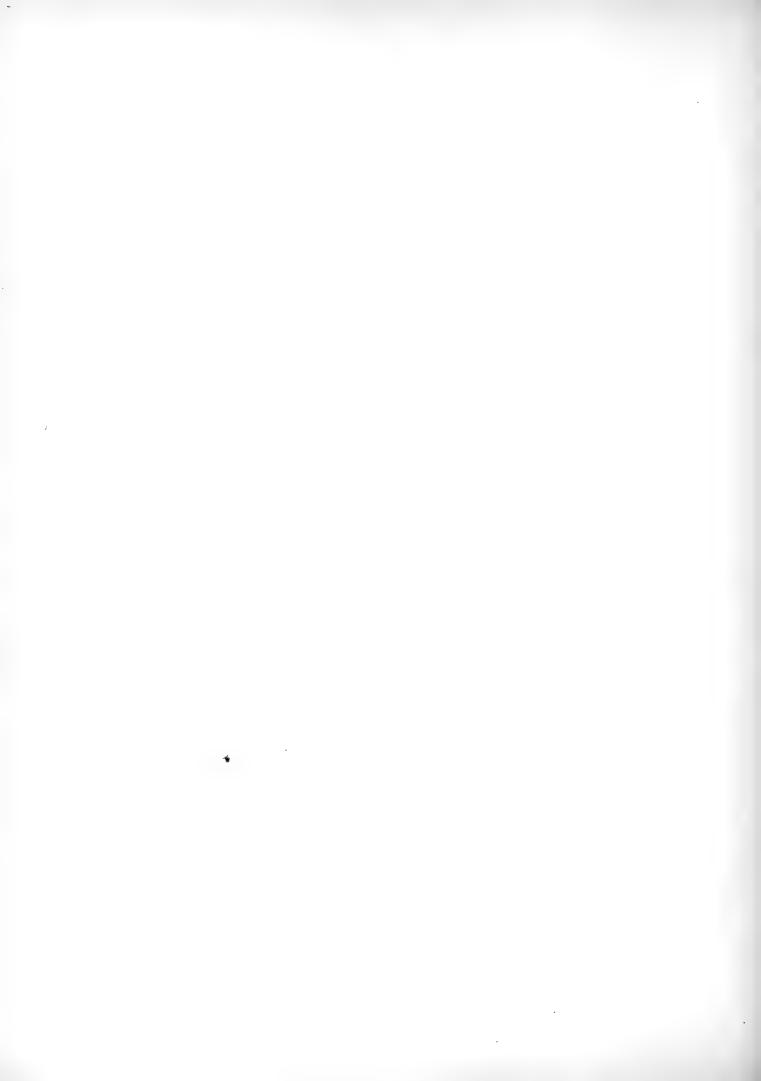
Order: Ruminantia.

Genera. Tarandus, Camelopardalis.

Families Cervidæ.

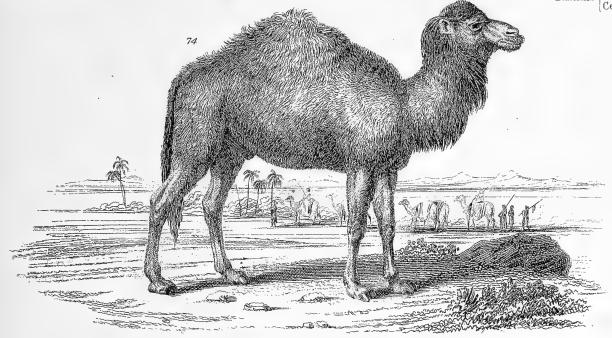


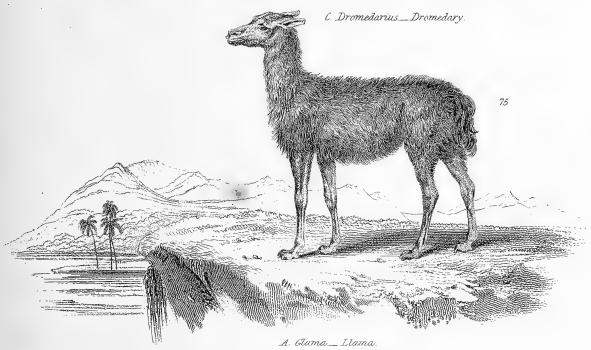
Landseer, del.

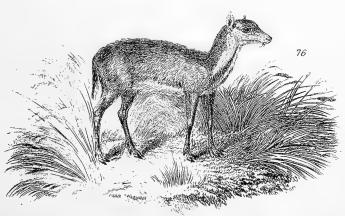


Genera. Camelus Auchenia Tragulus.





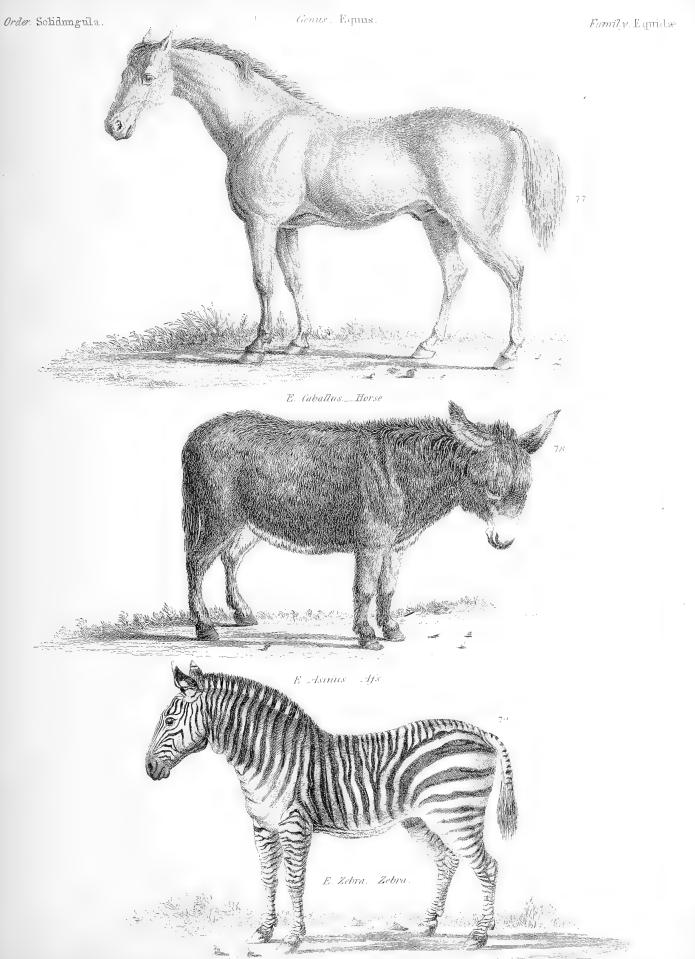




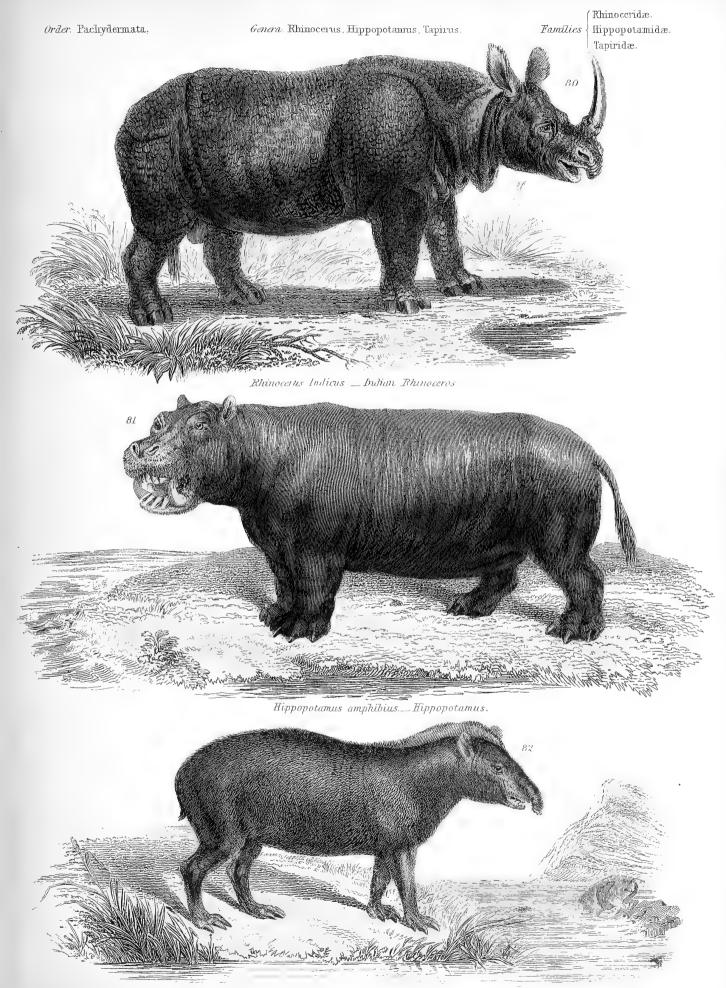
T. Javanicus_Java Musk. Deer.

Order Ruminantia.

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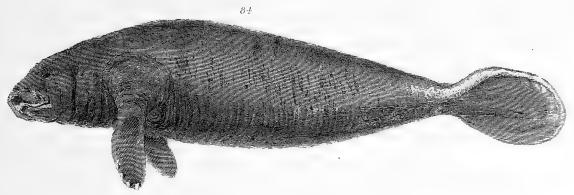
Tapirus Americanus. __ American Tapir.

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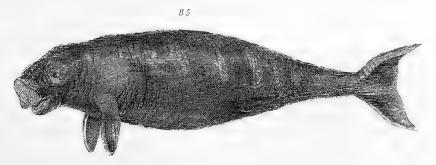
Order. Cetacea.

Genera, Manatus, Halicore, Rhytina.

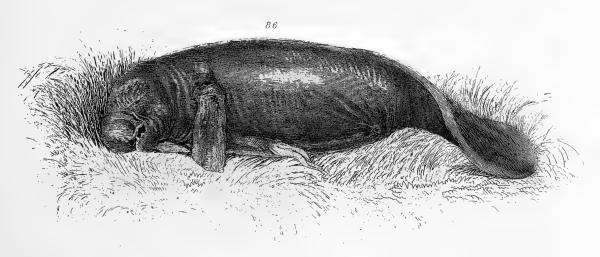
Family. Manatida.







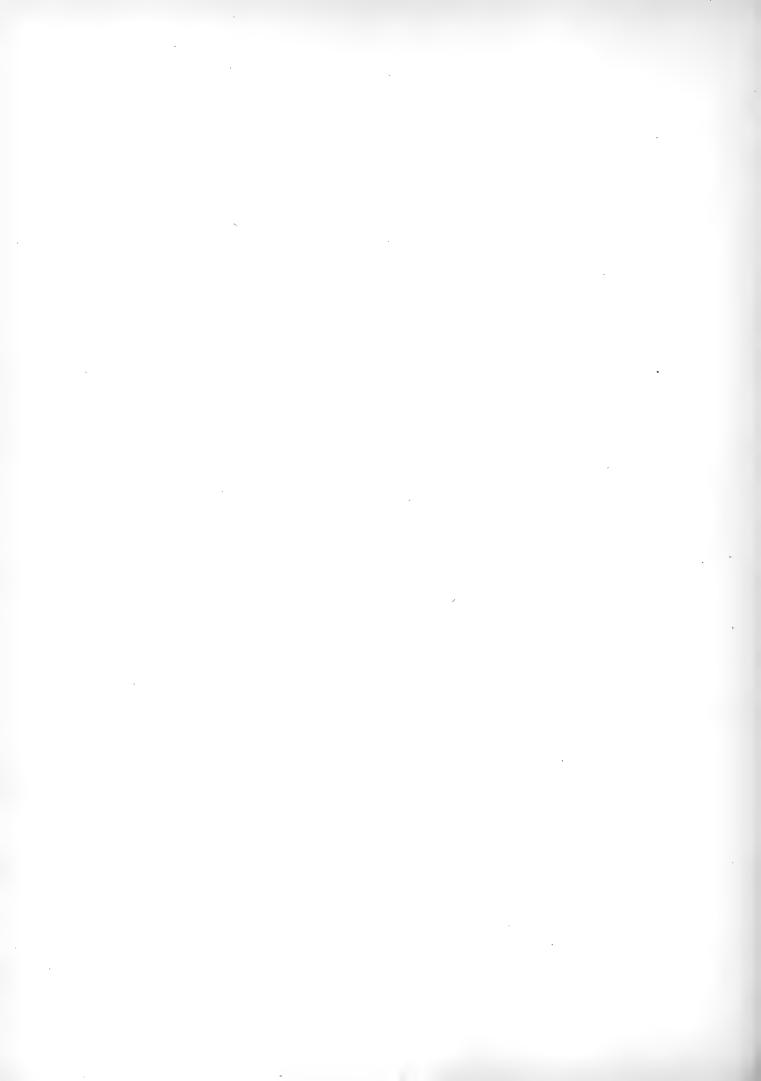
H. Dugong. __ Indian Dugong.



R. Stelleri. ___ Steller's Rhytina.

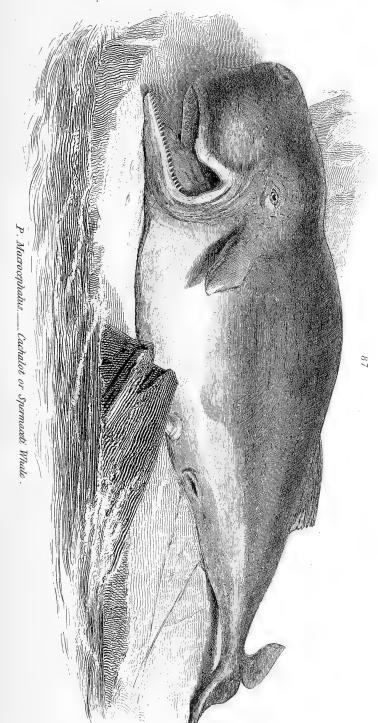
Landseer, del

.I.N Allan.Lith





M. Monoceres.____ Narwhal



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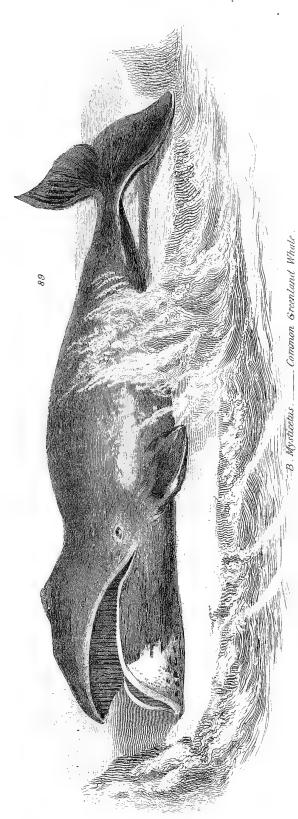
VIRTUE & YORSTON, NEW YORK.

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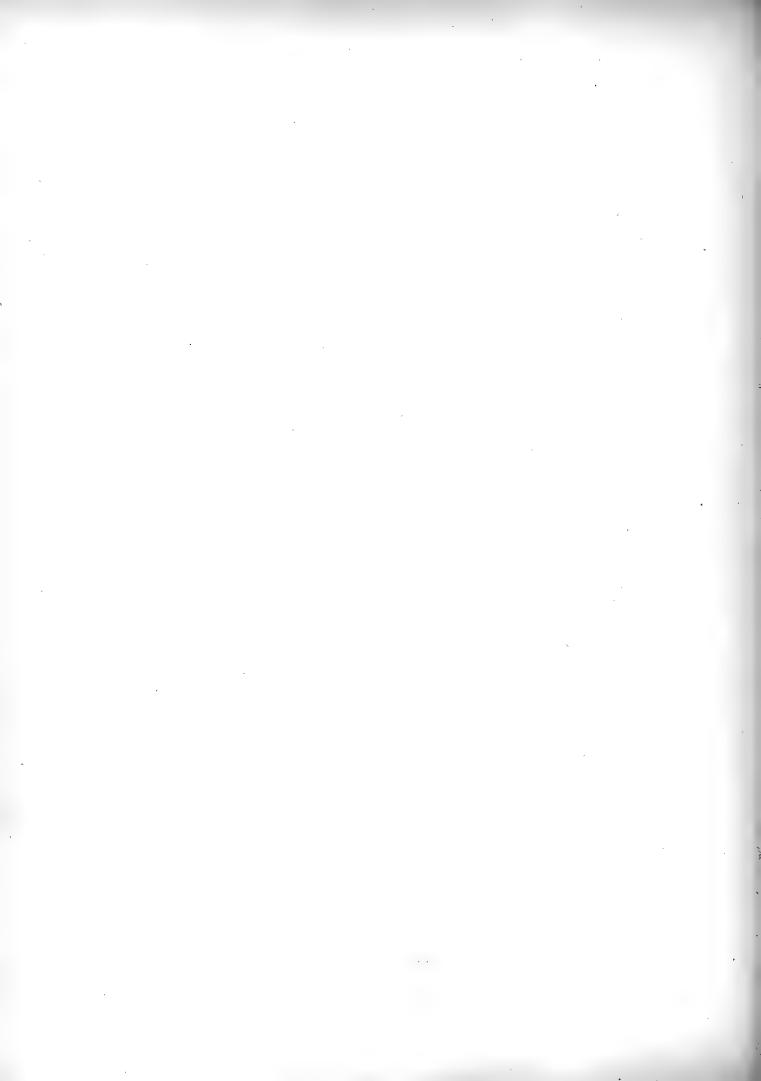
Genera, Delphinus Balæna.

Families Delphinida.





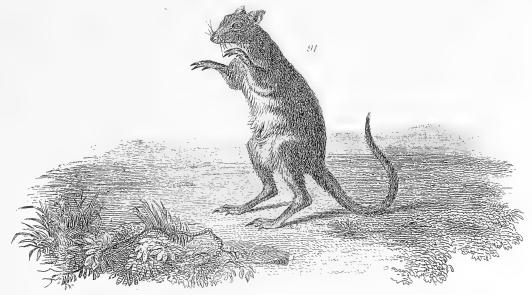
VIRTUE & YORSTON, NEW YORK



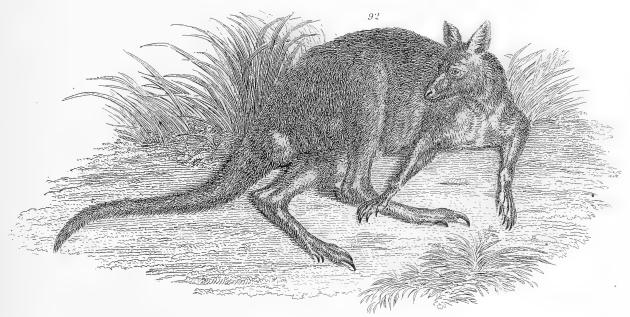
Order. Marsupialia.

Genera. Hypsyprymnus. Macropus. Phascolomys.

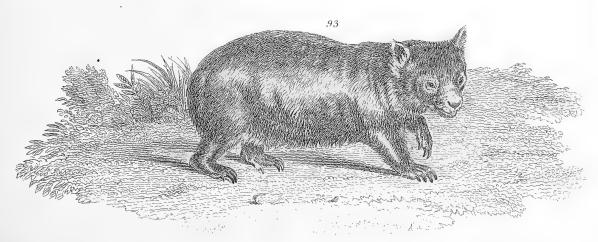
Families (Macropidæ)
Phascolomydæ.



Hyp: minor _ Potoroo. or Kanguroo Rat.



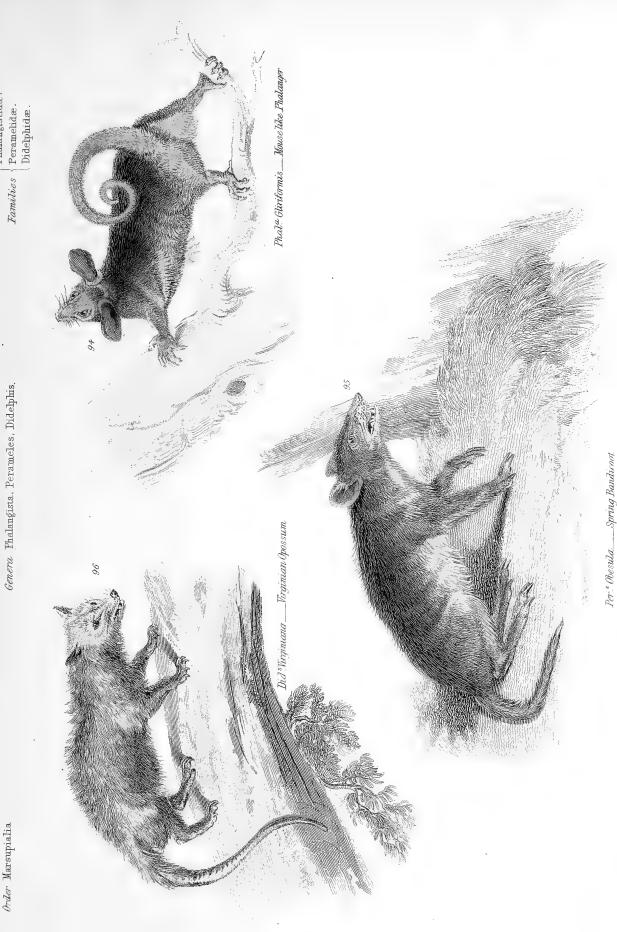
M. Giganteus._Great Kangaroo

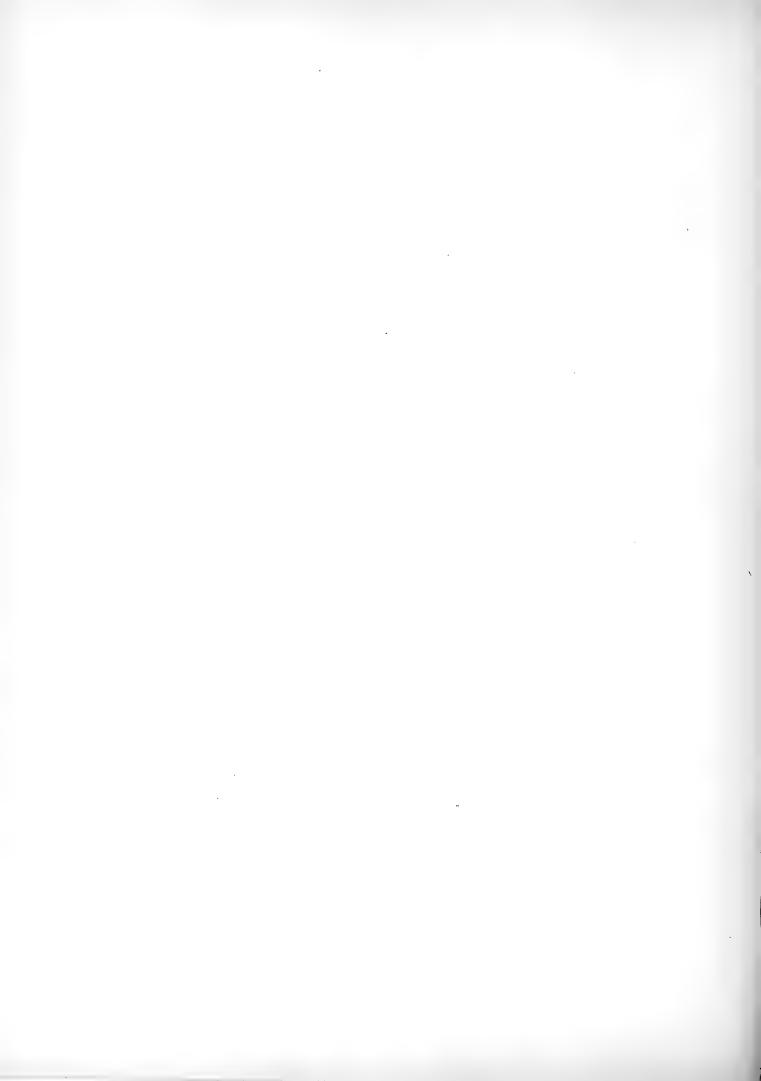


P. Wombat _ Wombat.

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Phalangistidæ.

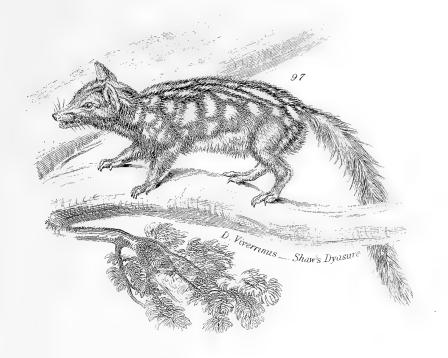




Orders { Marsupialia Monotremata

Genera Dasyurus, Tachyglossus, Ornithorhynchus,

 $\begin{array}{c} \textit{Pamilies} & \texttt{Dasyurid} \\ \texttt{Tachyglossid} \\ \texttt{Ornithorhynchid} \\ \texttt{w} \end{array}$

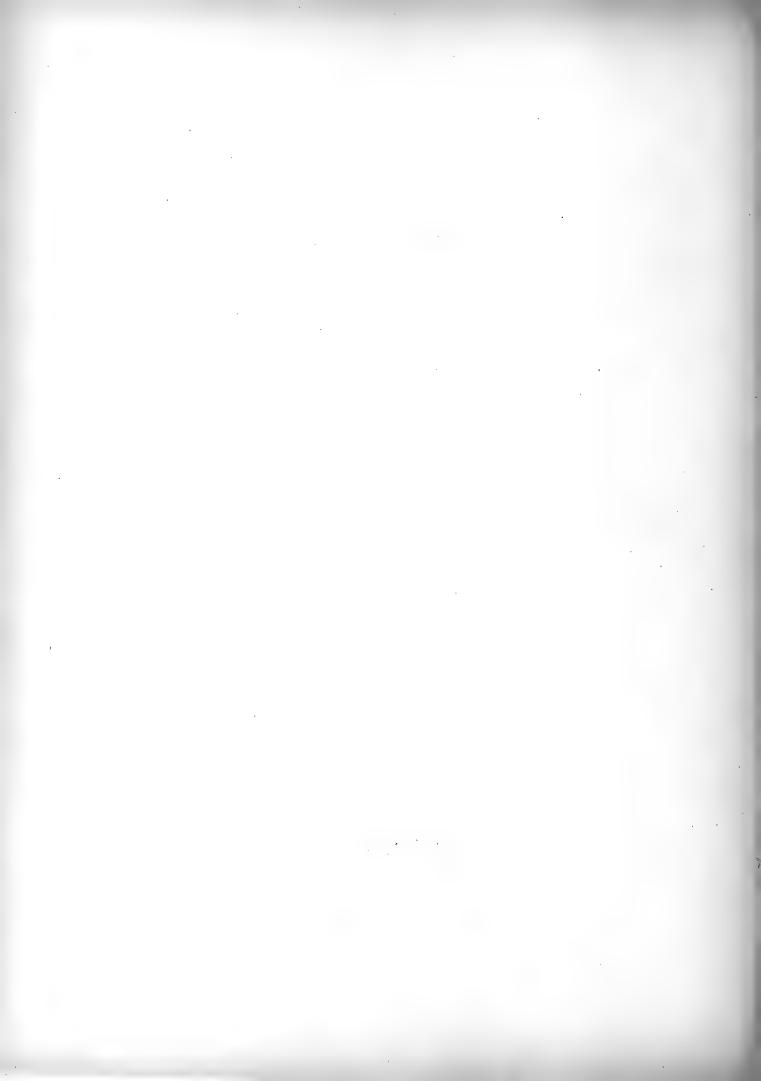




T. Hystrix__ Porcupine Ant-eater



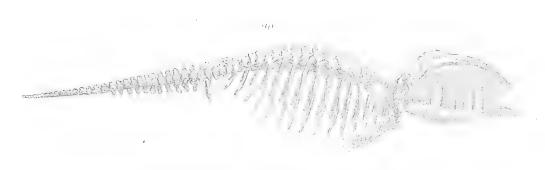
O. Paradoxus___ Duck-bill



Order, Cetacea.

Genera, Balana.

Family Balanida



Balana Mysticetus. Skeleton of Greenland While.

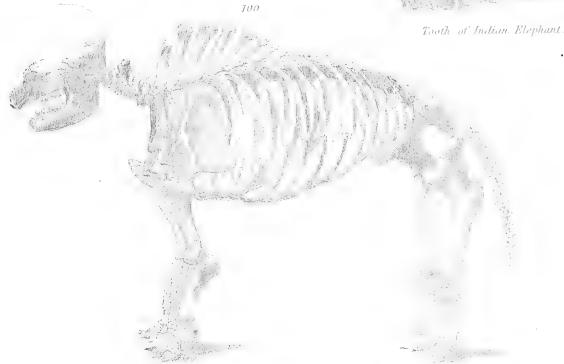
Order. Pachydermata



Tooth of African Elephant

Genus Mastodon.

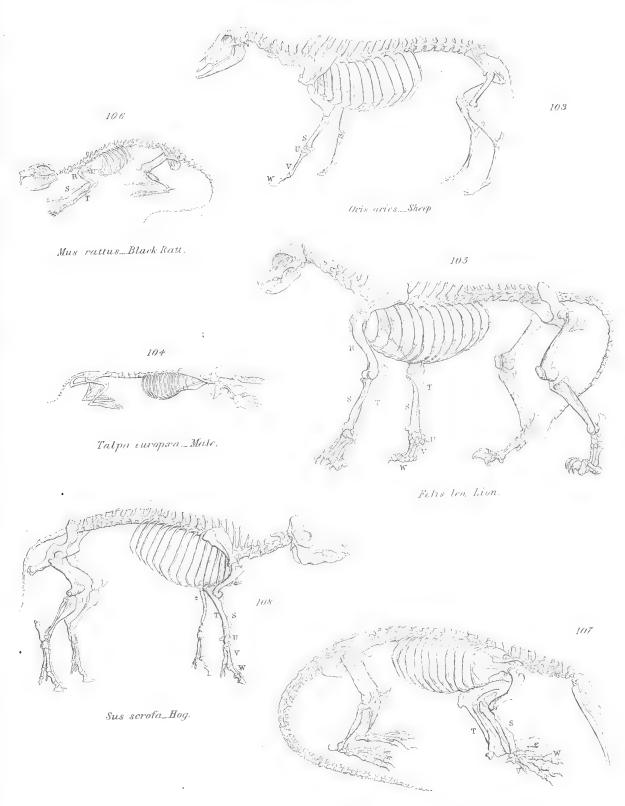




M. Gyanteum . Ciganii - Mastadon .

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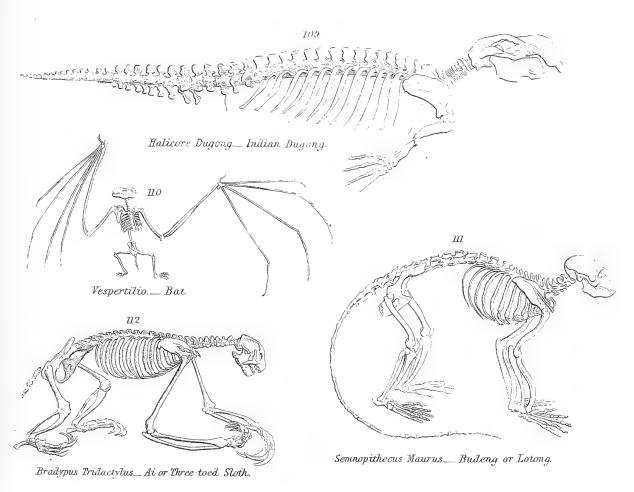
Skeletons. . . .

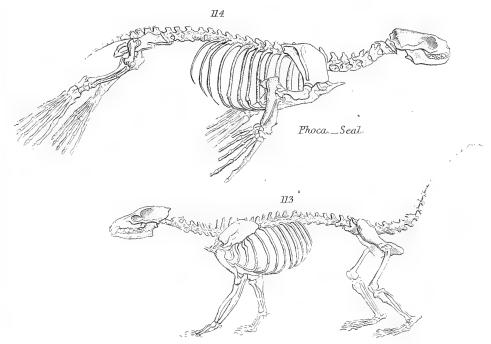


Myrmecophaga jubata_Great Ant eater.



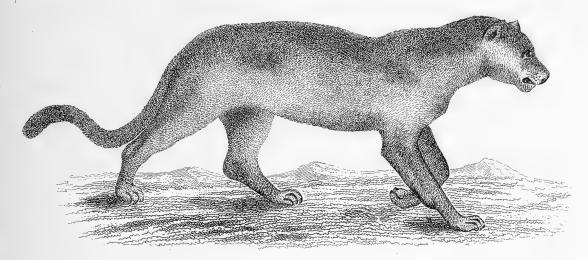
Skeletons.



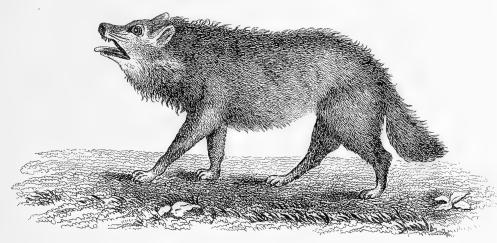


Nasua narica __Coatimondi.





i Felis concolor_Puma



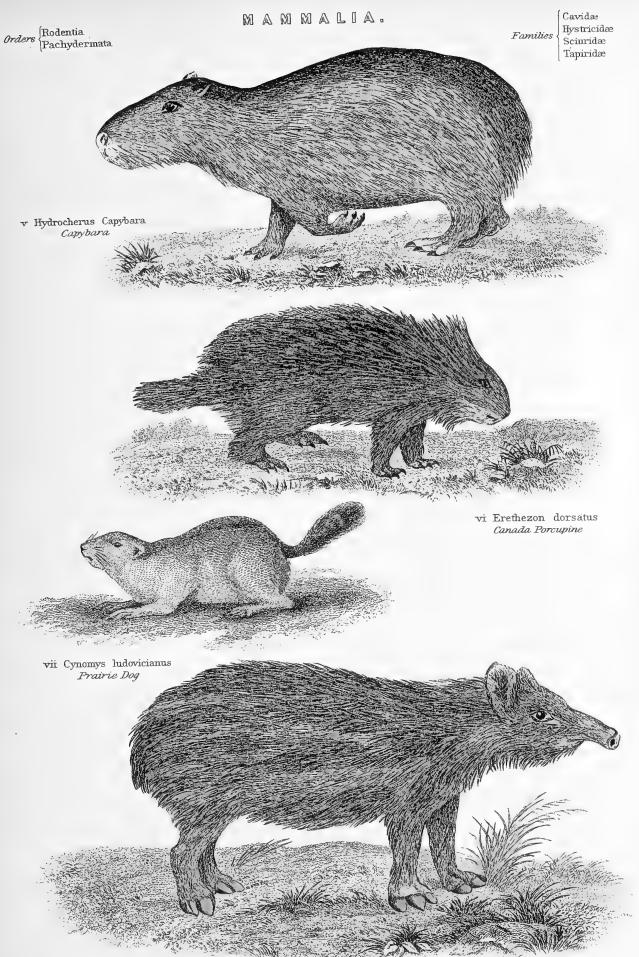
ii Canis latrans _ Prairie Wolf.





iv Arctomys monax_Woodchuck.

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viii Elasmognathus Bairdii __ Bairds Tapir



Genera Vultur Sarcorhamphus Neophron

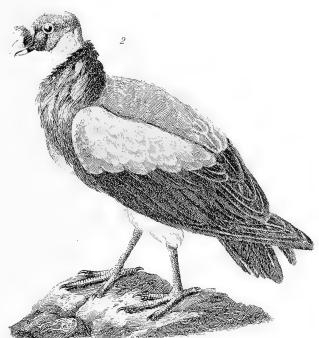
Family Vulturidæ



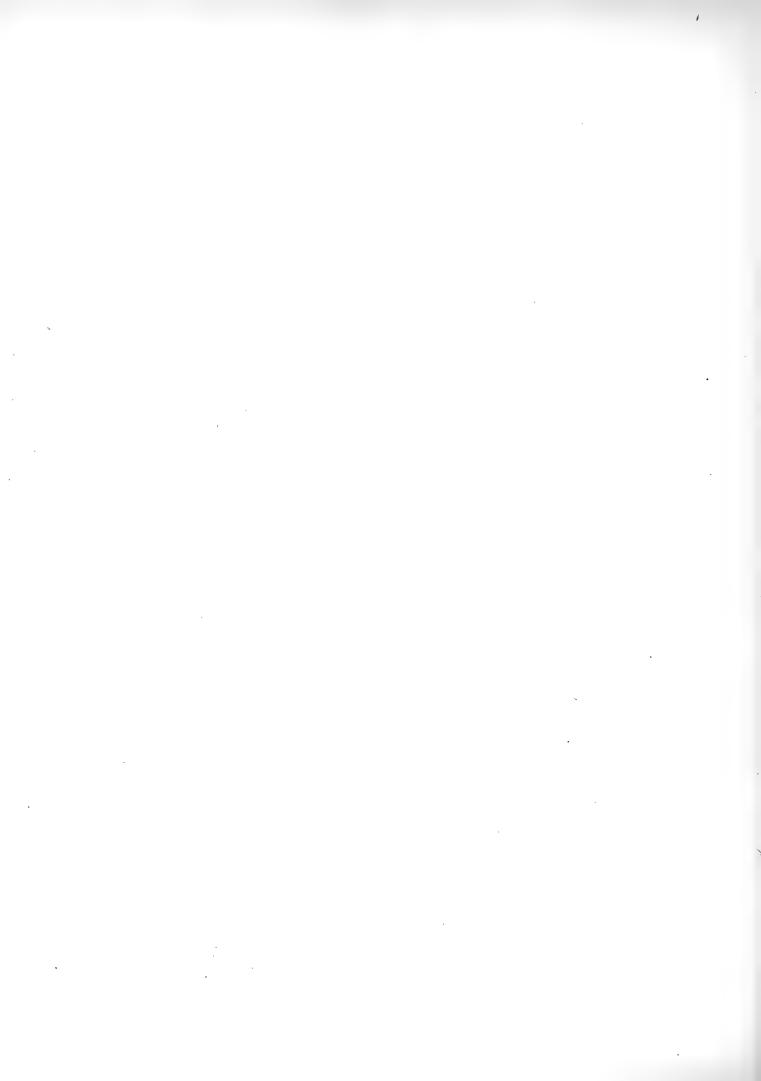
Vultur Monachus Arabian Vulture



Neophron Percnopterus Egyptian Vulture



Sarcorhamphus Papa King Vilture



Order Accipitres

Genera Gypaetos. Falco. Spizaetus.

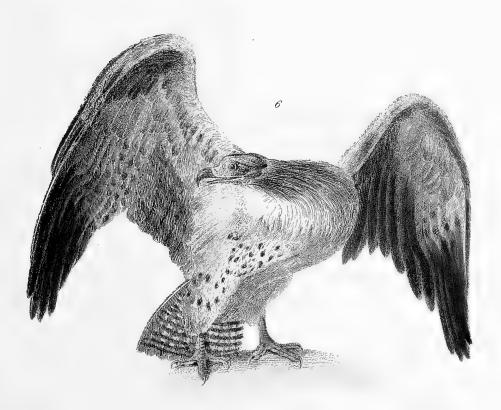
Families Vulturidæ.



Falco Berigora_Cream belliea Falcon.



Gypaëtos Barbatus._Lammergeyer.



Spiz Bellicosus. Martial Eagle.

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Order Accipitres

Genera Buteo, Serpentarius, Syrnium.

Families | Falconidæ Strigidæ



Buteo Lagopus Rough-legged Buzzard



Withers del



Genera Otus. Strix, Surnia.

Family Strigidæ



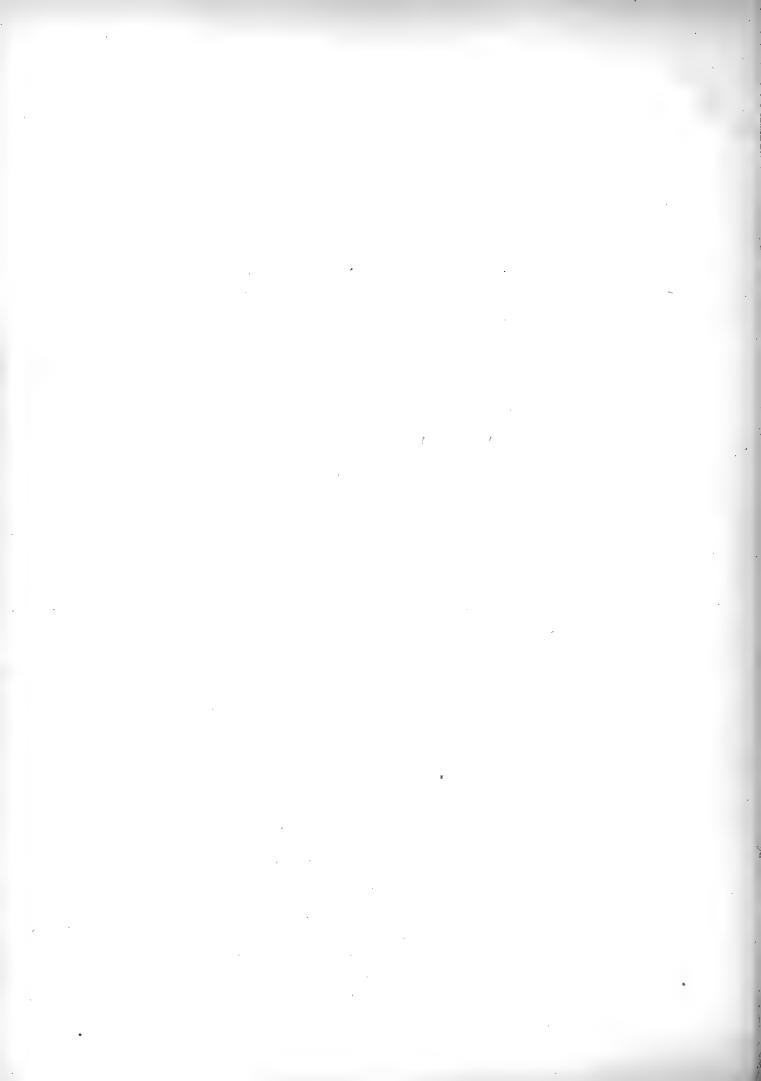
Otus vulgaris Long Eared Owl.



Strix flammea Barn Owl.



Surnia nyctea Snowy Owl



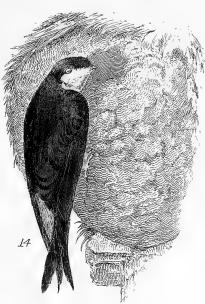
Order, Passeres.

Genera, Hirundo, Chelidon, Cypselus, Collocalia.

Families | Hirundinidæ.



H. Rustica . Chimney Swallow.



C. Urbica . House Martin.



Cyp. Apris. Common Swift.



Col . Esculenta_ Esculent Swallow.

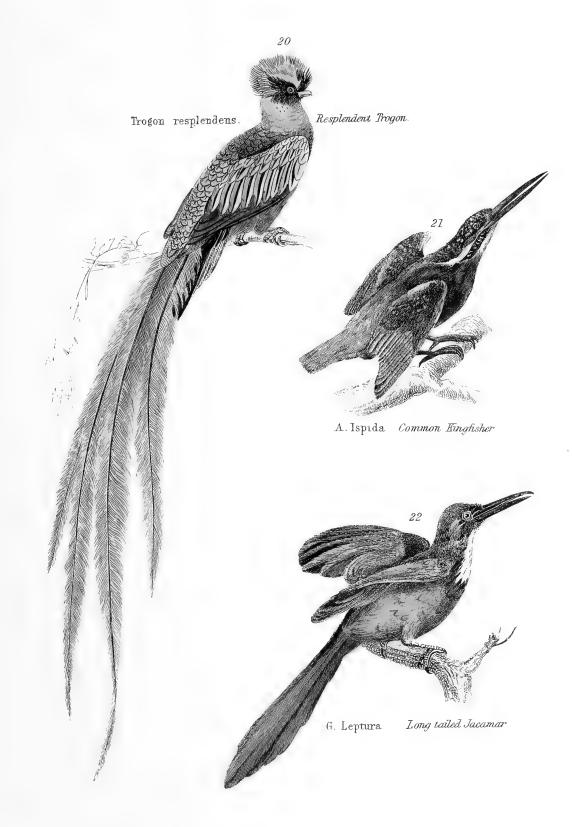
(Caprimulgidæ. Order, Passeres. Genera, Caprimulgus, Macrodipteryx, Eurylaimus. Families Coraciadæ. C. Europœus Common Goat Sucker. $E. Javanicus_Javanese\ Tody.$ M. Longipennis Leona Goat Sucker.

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Order Passeres

Genera Trogon, Alcedo, Galbula.

Families Trogonidæ
Alcedinidæ





BIRDS.

Order Passeres.

 ${\it Genera}\ \, {\it Jacamerops}, {\it Merops}, {\it Upupa}, {\it Trochilus}.$

Families

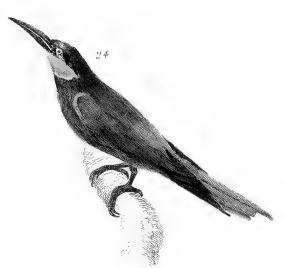
Alcedmdæ. Meropidæ. Upupaidæ.` Trochilidæ.



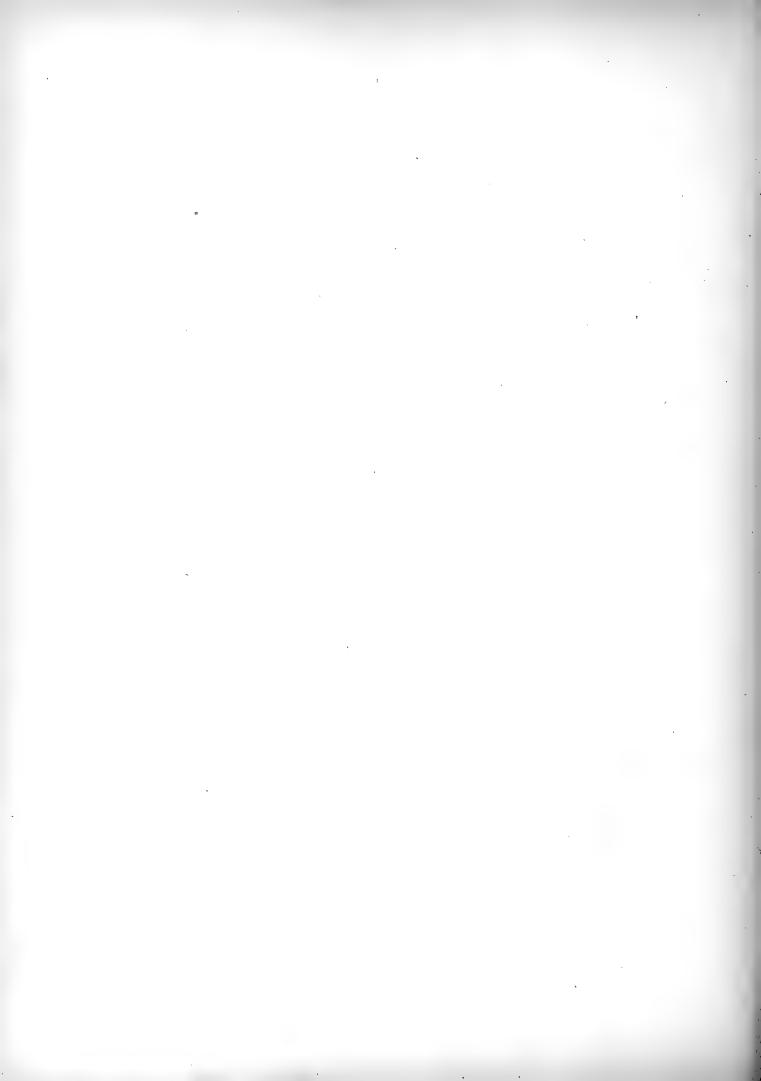




Trochilus granatmus



M. Apiaster. Bee eater



Order, Passeres.

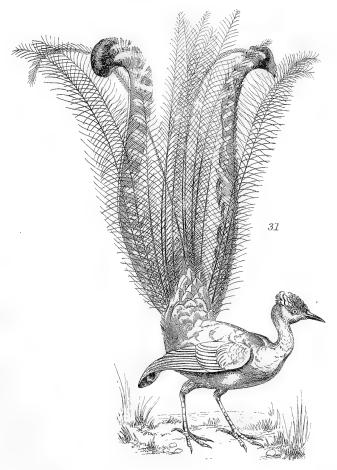
Genera, Certhia, Tichodroma, Sitta, Menura.

Family, Certhiadæ.









 ${\tt Menura superba._Lyre-bird.}$



Order: Passeres.

Genera, Mecistura, Erythacus, Mimus, Muscicapa.

Families Sylviidæ.
Turdidæ.
Muscicapidæ.





F. Rubecula._Red-breast.





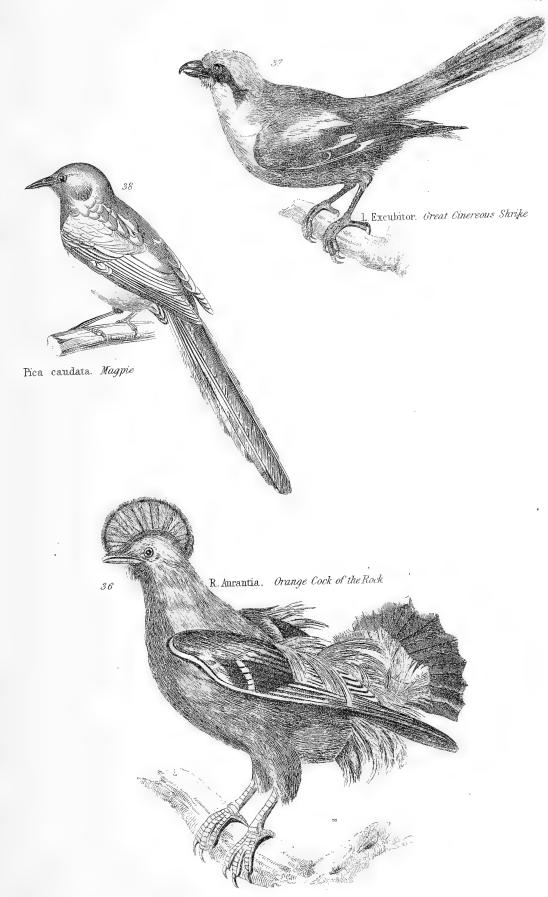


Order Passeres

Genera Rupicola, Lanius, Pica.

Families |

Ampelidæ. Laniidæ. Corvidæ.

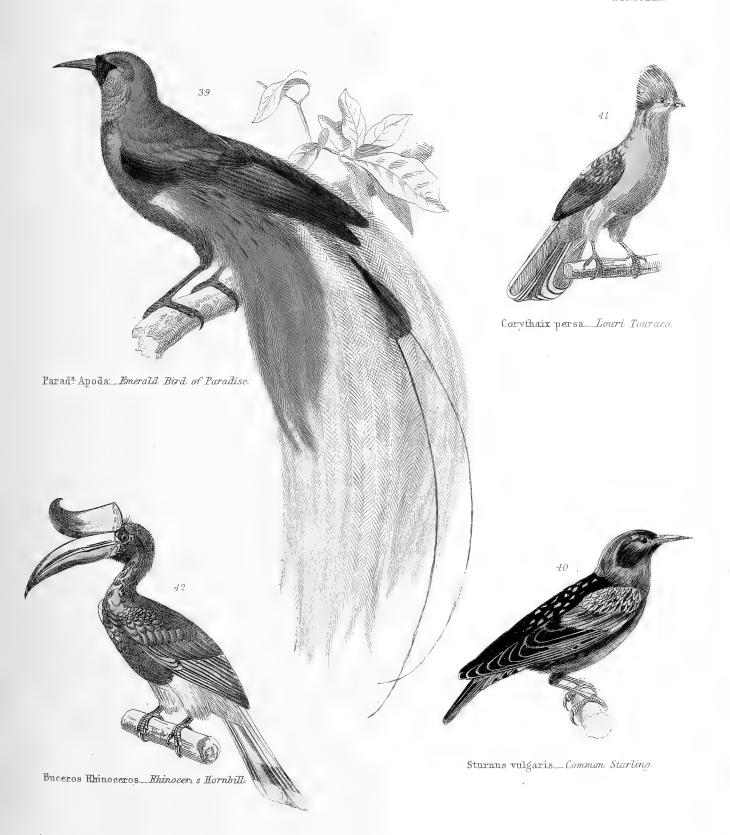


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Order. Passeres.

Genera. Paradisea. Sturnus. Corythaix. Buceros.

| Paradiseidæ | Sturnidæ | Musophagidæ | Bucerotidæ.

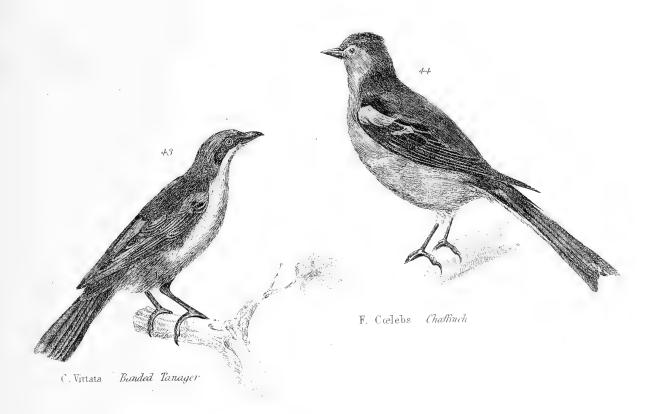


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Order Passeres

Genera Calospiza Fringilla Emberiza, Alauda.

Family Fringillidæ





A. Arvensis Skylark

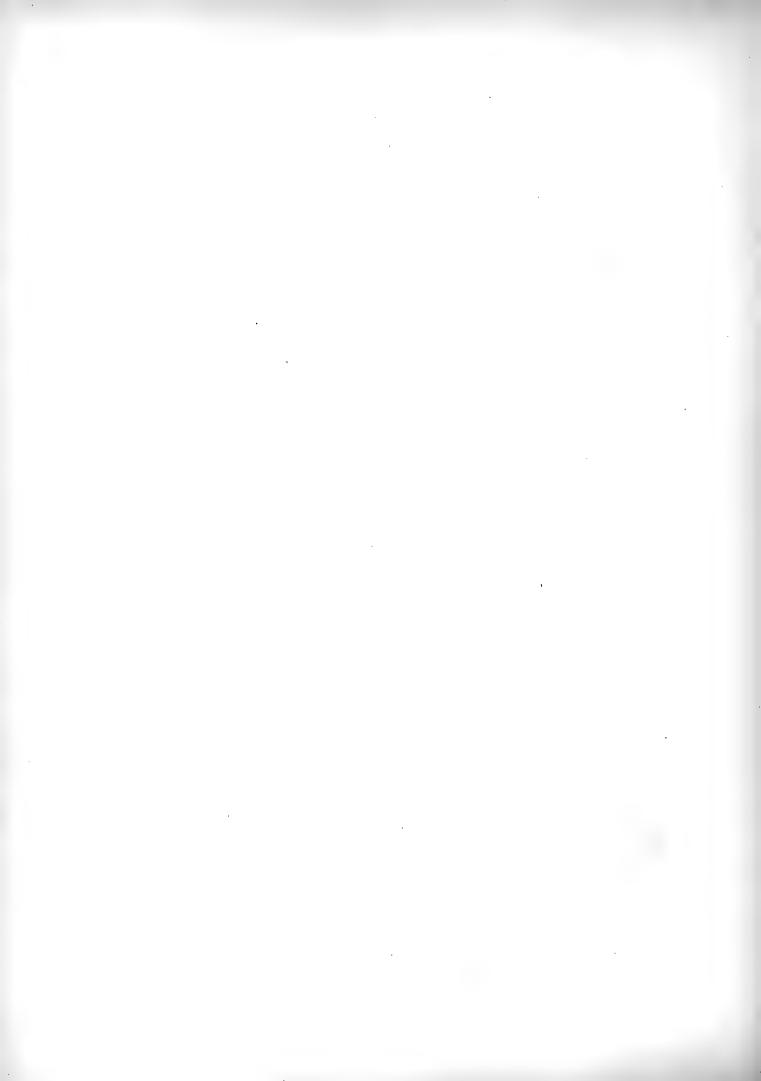


Orders Passeres.
Scansores.

tienera. Pinicola, Loxia. Macrocercus.

Families. | Fringillidæ.





Order, Scansores.

Genera, Conurus, Psittacus, Psittacula, Licmetis. Microglossum

Family. Psittaciāæ.





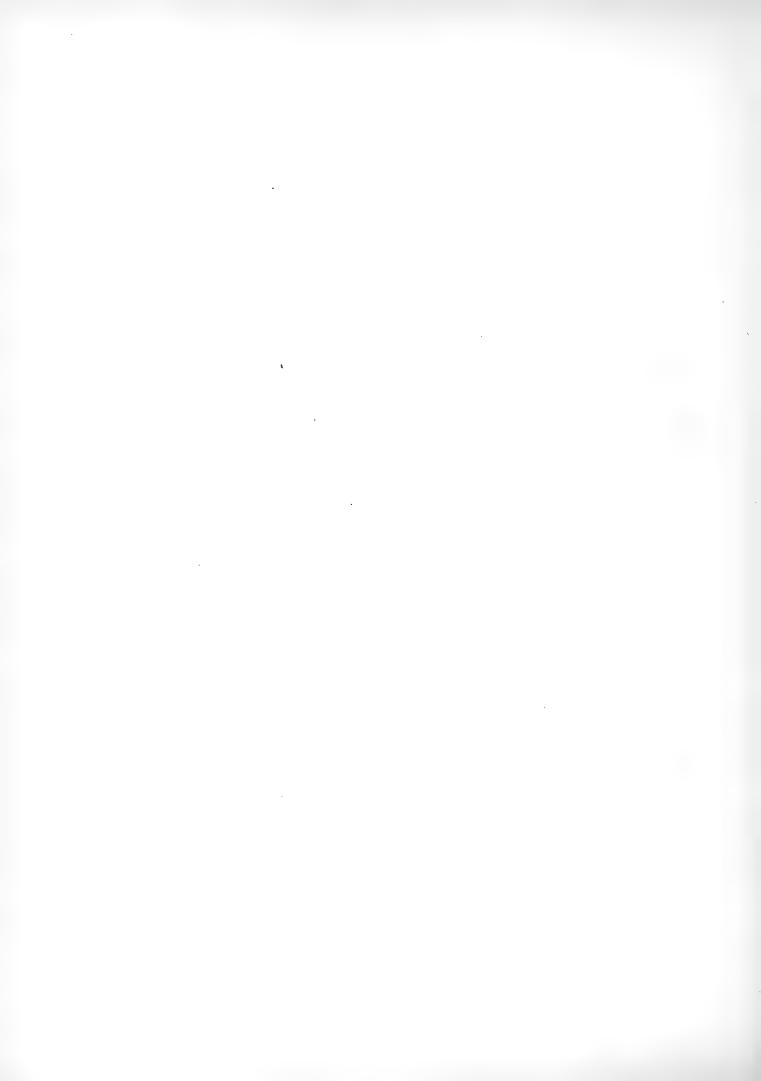
Psitta Pileata_Bons sted Psittucule.



L. Tenuirostris_Long-nosed Cockatoo.



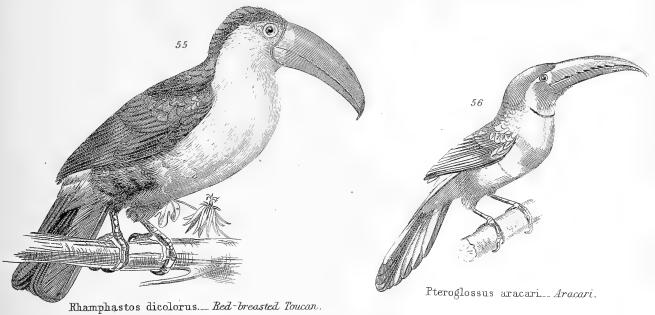
Micro. Aterrimum. _Gotah Cockatoo.



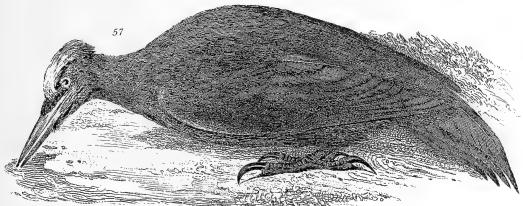
Order, Scansores.

Genera, Rhamphastos, Pteroglossus, Picus, Picoides.

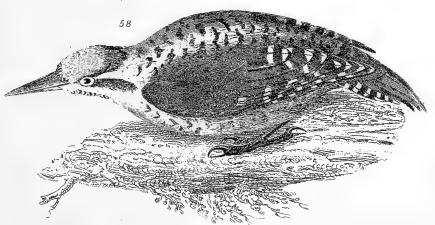
Families Rhamphastidæ.







Picus Martius. _ Great Black Woodpecker.



Picoides Tridactylus_Three-toed Woodpecker.



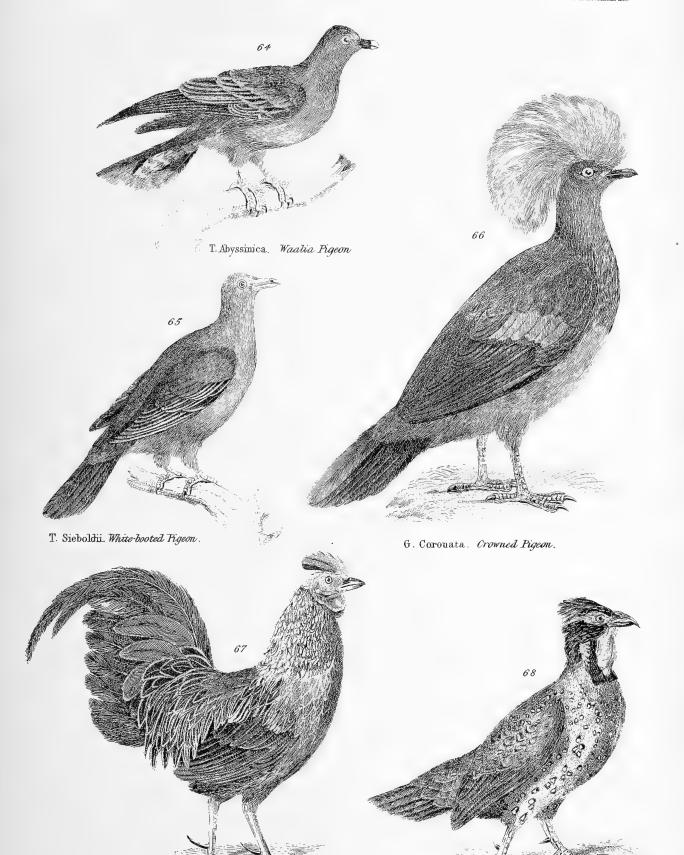
Scansores. Genera. Yunx, Cuculus, Columba. Carpophaga. Families | Cuculidæ. Columbæ. Columbidæ. Cuculus Canorus.__Cuckoo. 62 Yunx Torquilla_Wryneck. C. Punicea._White-headed Pigeon. N-TO CANONINA CONTRACTOR OF THE PARTY OF THE Car. Magnifica._Magnificent Fruit Pigeon C. Œnas. Stock Dove.

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 $\textit{Orders} \left\{ \begin{matrix} \text{Columb} \, \text{\mathfrak{x}} \\ \text{Gallin} \, \text{\mathfrak{x}} \end{matrix} \right.$

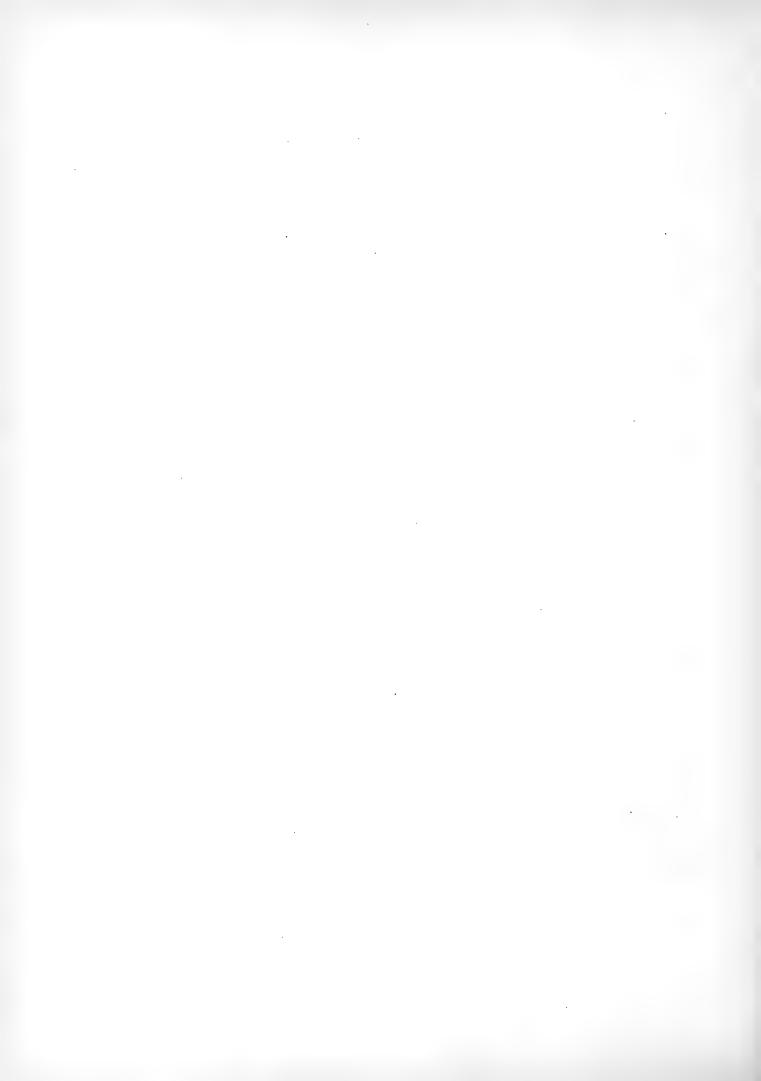
Genera Treron. Goura. Gallus. Ceriornis.

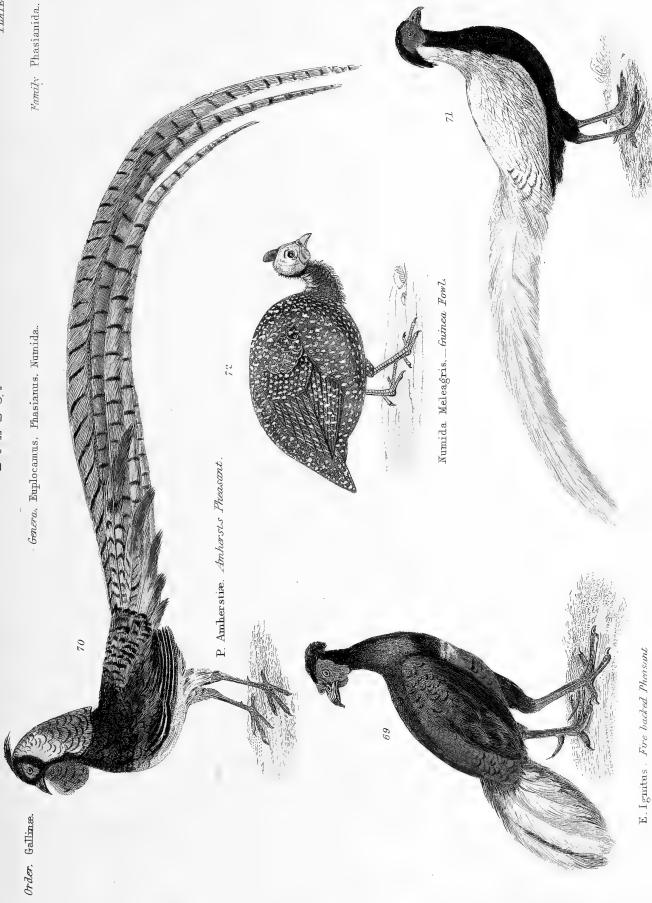
Families Columbidæ Phasianidæ



G. Bankivus. Bankiva Cock.

C. Satyrus. Fragopan or Nepaulese Horned Pheasant.





P Nychemerus. Silver Pheusant

VIRTUE & YORSTON, NEW YORK,

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Order; Gallinæ.

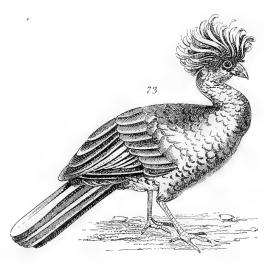
Genera Crax, Talegalla, Megapodius, Caccabis, Rollulus, Chionis.

Families

Cracidæ. Megapodiidæ Tetraonidæ. Chionididæ.



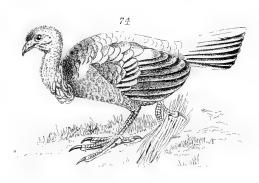
M. Freycineti. Freycinet's Mankirio



C. Alector. __ Common Curassow.



C. Rubra_Red-legged Partridge.



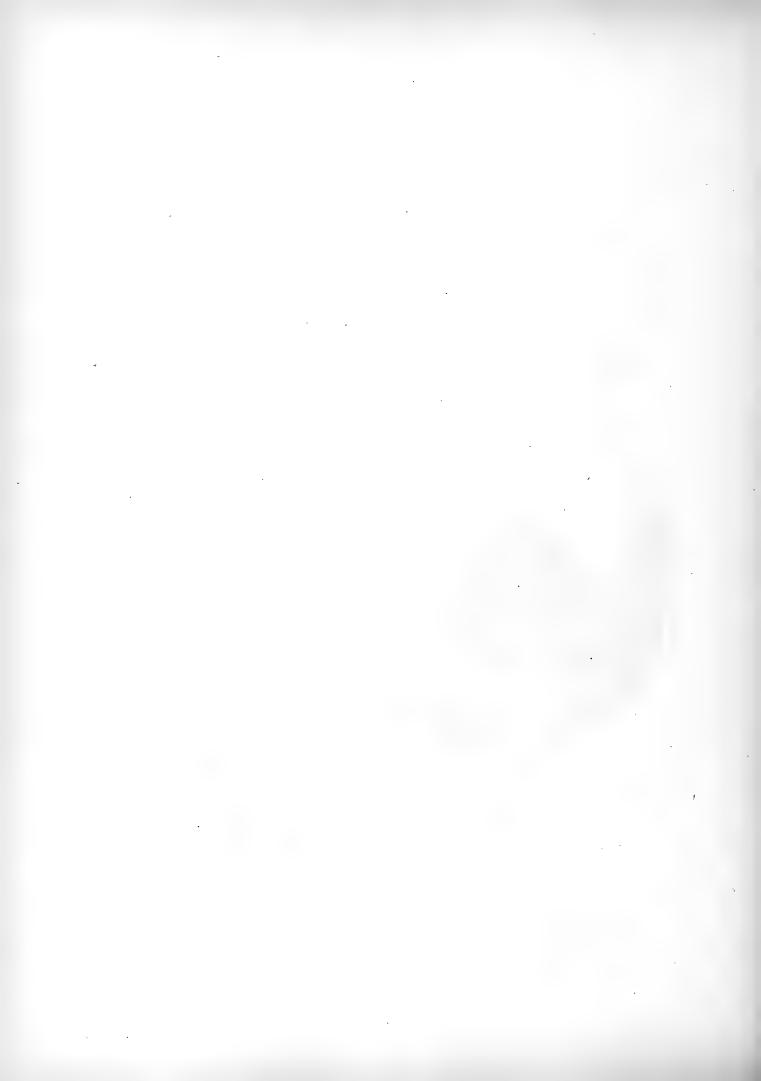
T. Lathami. _ Brush Turkey.



C. Alba._White Sheathbill.



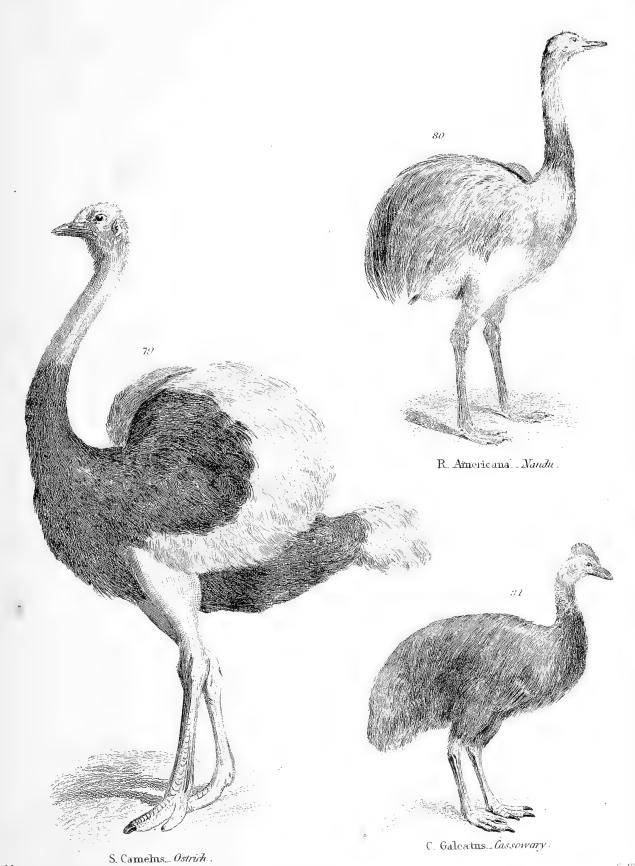
R. Cristatus.—Crowned Partridge.

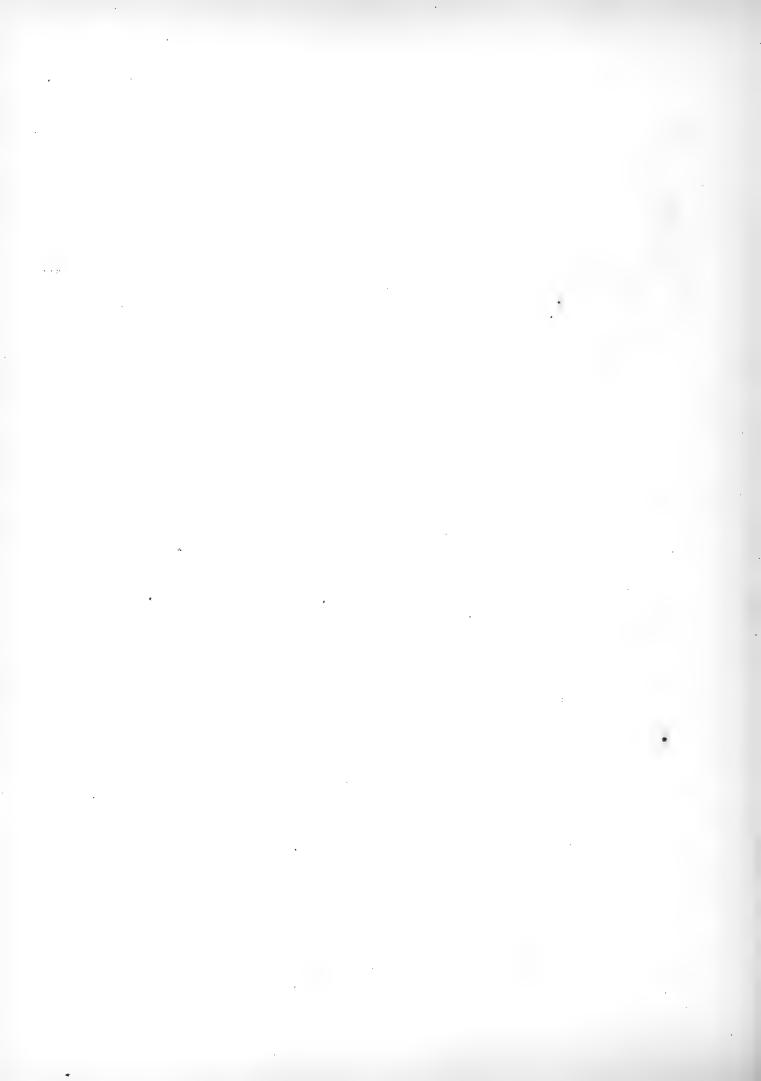


Order. Cursores.

Genera, Struthio, Rhea, Casuarius.

Family. Struthionida.





Orders Cursores.

Genera. Dromains. Apteryx. Otis. Edicnemus.

Families Struthionidæ.
Apterygidæ.
Otididæ.
Charadriidæ.



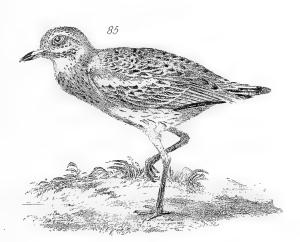
D. Novæ Hollandiæ _ Emeu



Apteryx Australis __ Shaw's Apteryx.



Chas. Bone, del. 0. Tarda. Great Bustard.



 \times . Crepitans $_$ Common Thick-knee.



Order, Grallæ.

Genera, Cursorius, Glareola, Charadrius, Squatarola, Hæmatopus, Cariama.

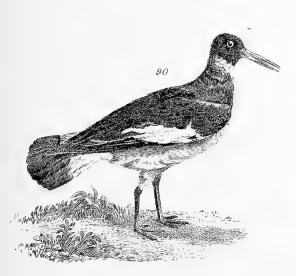
Families Charadriidæ.



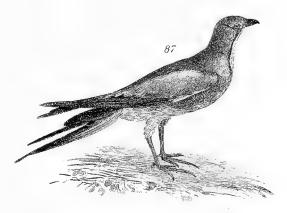
Cur. Chalcopterus._ Brazen-winged Courser.



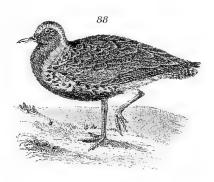
S. Helvetica _Gray Plover or Sand-piper.



H. Ostralegus._Oyster-cotcher



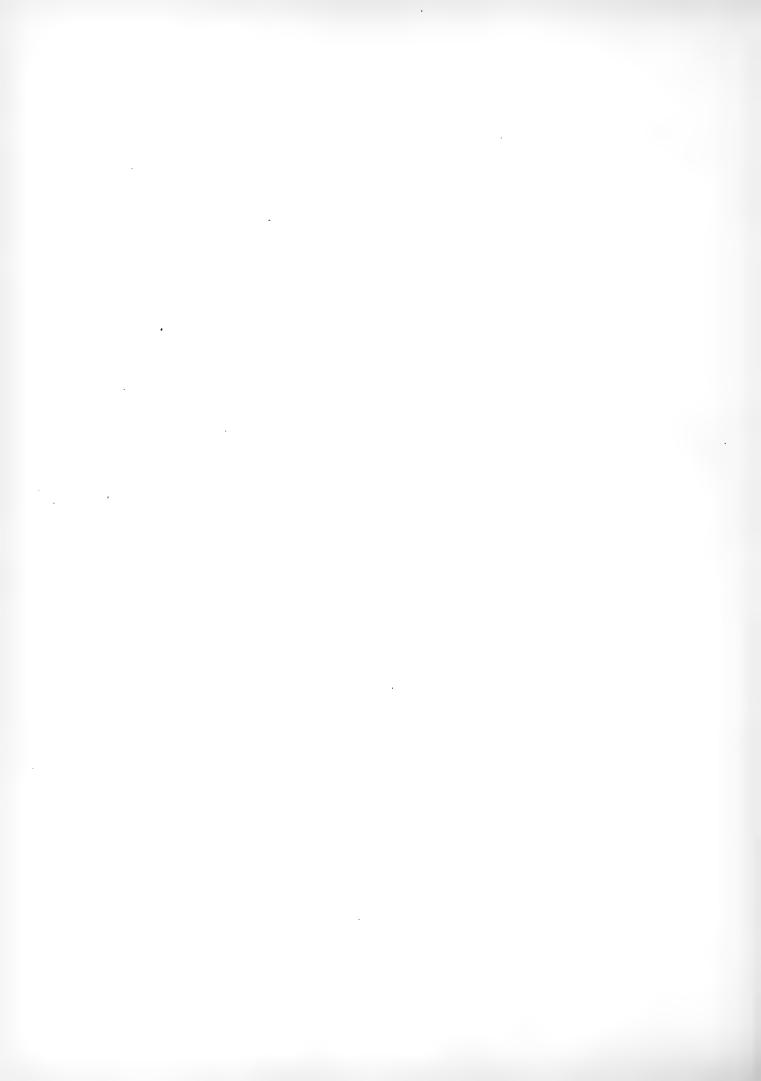
G. Torquata. _Collared Pratincole.

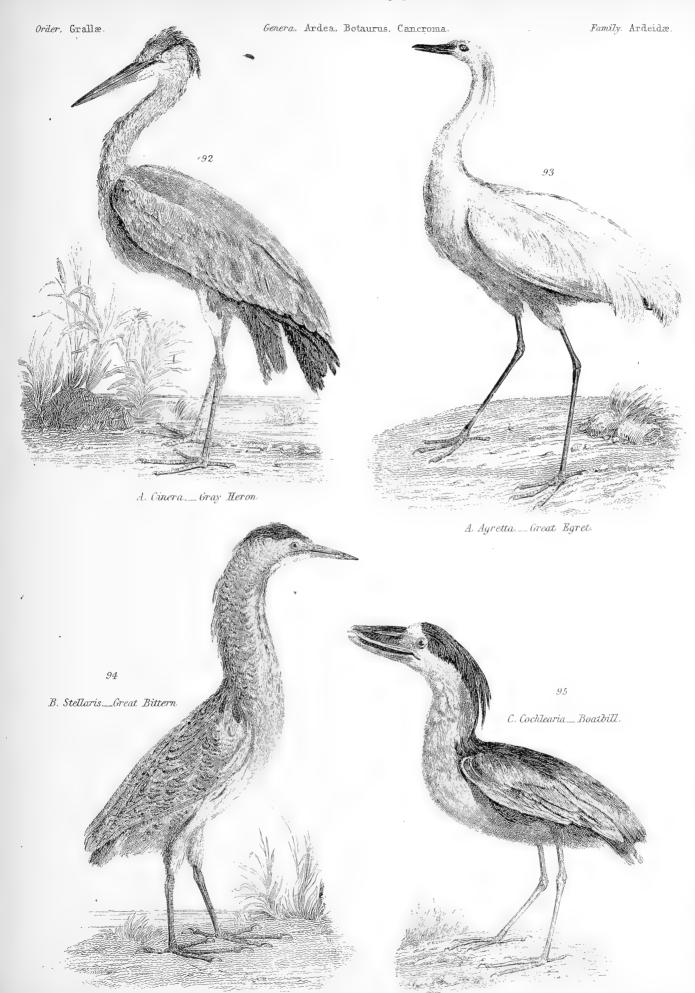


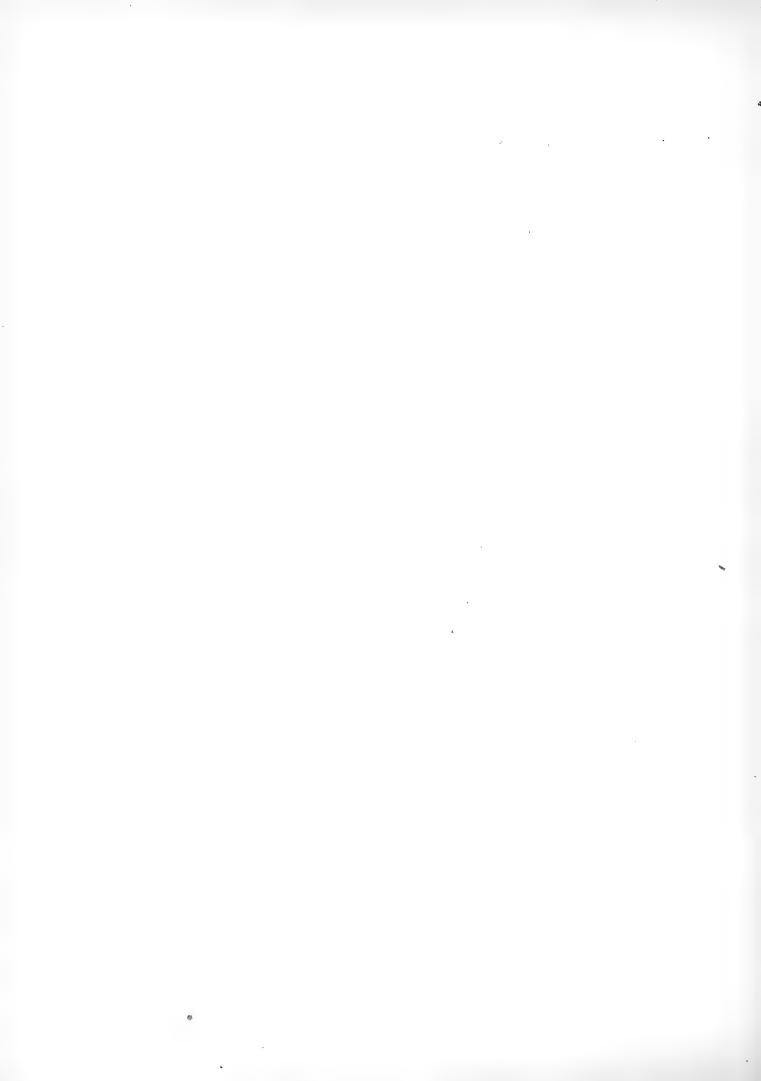
Char. Pluvialis._Golden Plover.



C. Cristata Marcaraves Cariama.





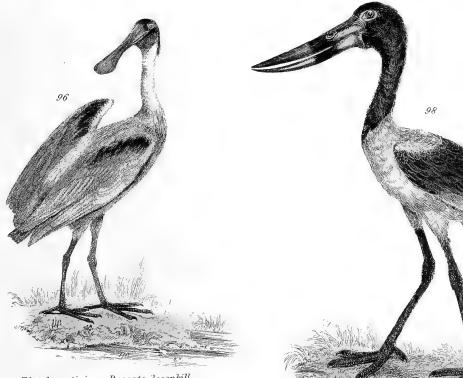


Genera Platalea, Ciconia, Mycteria,

Family Ardeidæ.

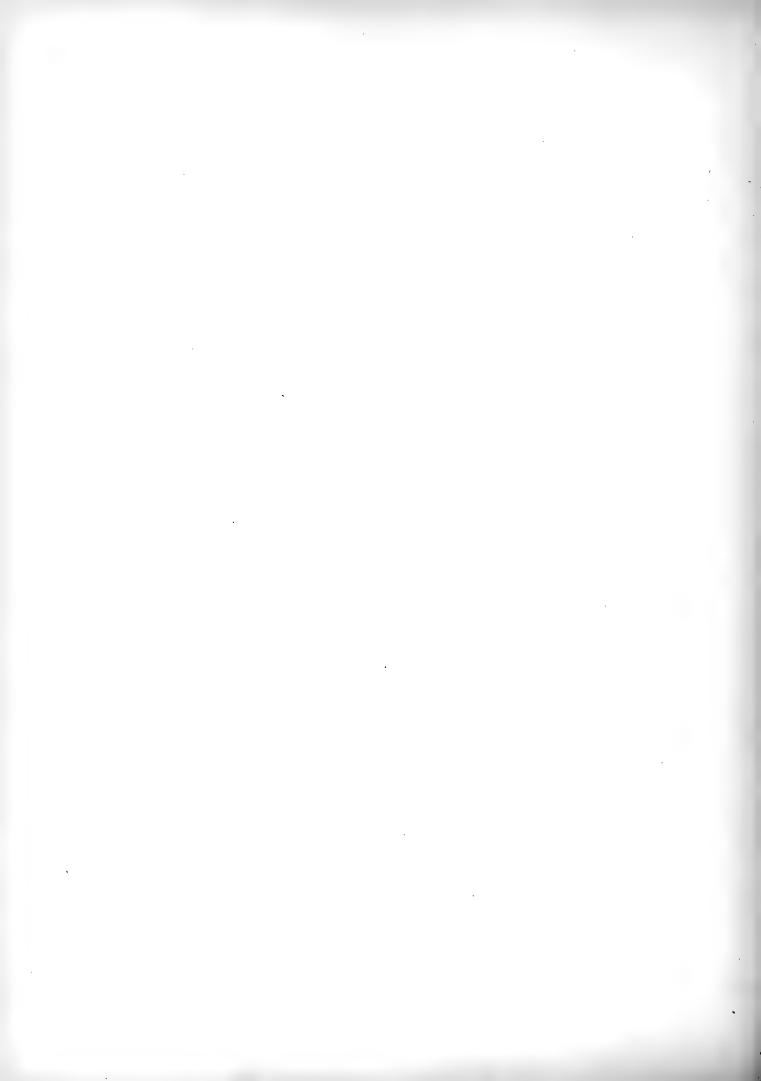


C. Alba_White Stork.



Platalea Ajaja_Roseate Spoonbill.

M. Senegalensis.__Senegal Jahiru.



Genera, Anastomus, Scopus, Tantalus.

Family. Ardeidæ.



S. Umbretta_Tufted Umbre.



A. Lamelligerus Madagascar Open-bill

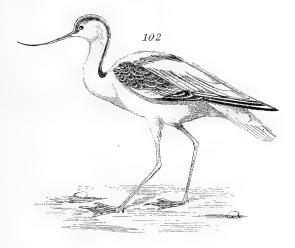




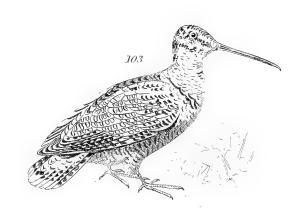
Order Grallæ

Genera Recurvirostra, Scolopax, Parra.

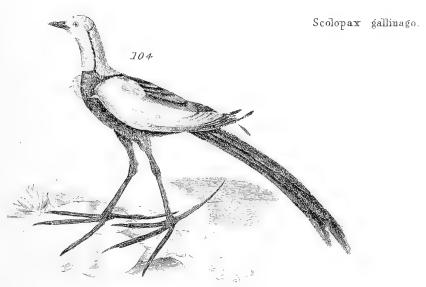
Families { Scolopacidæ Rallidæ



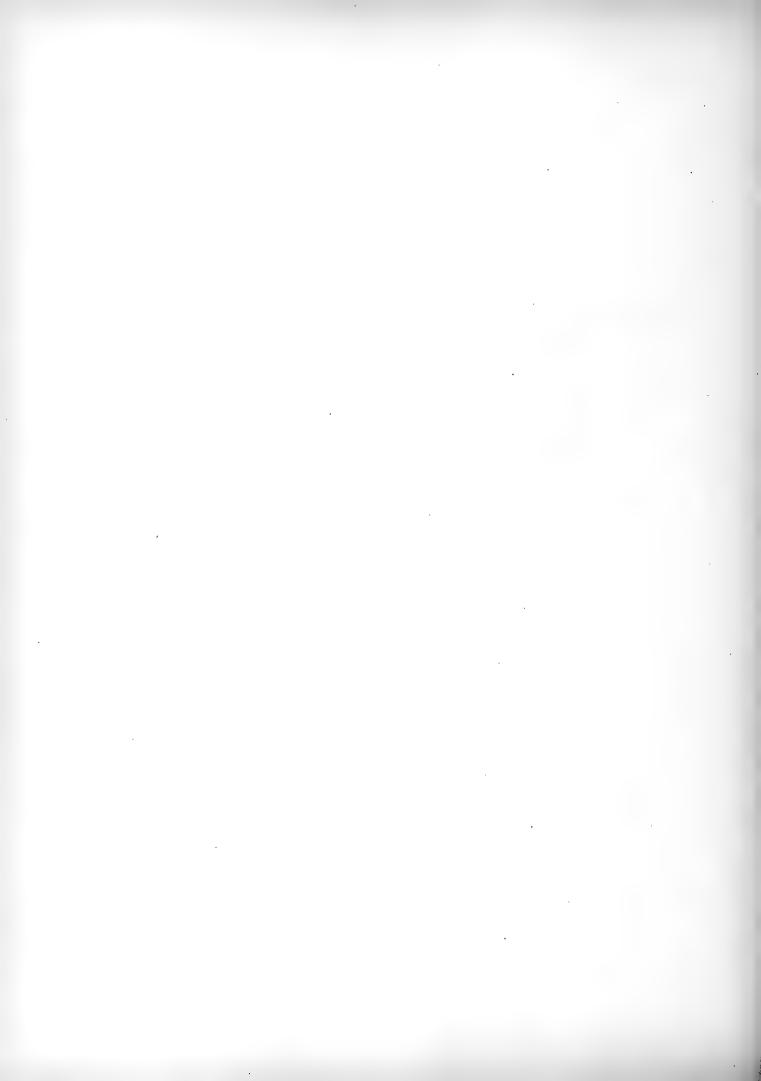
Recurvirostra avocetta ____ Avocet.

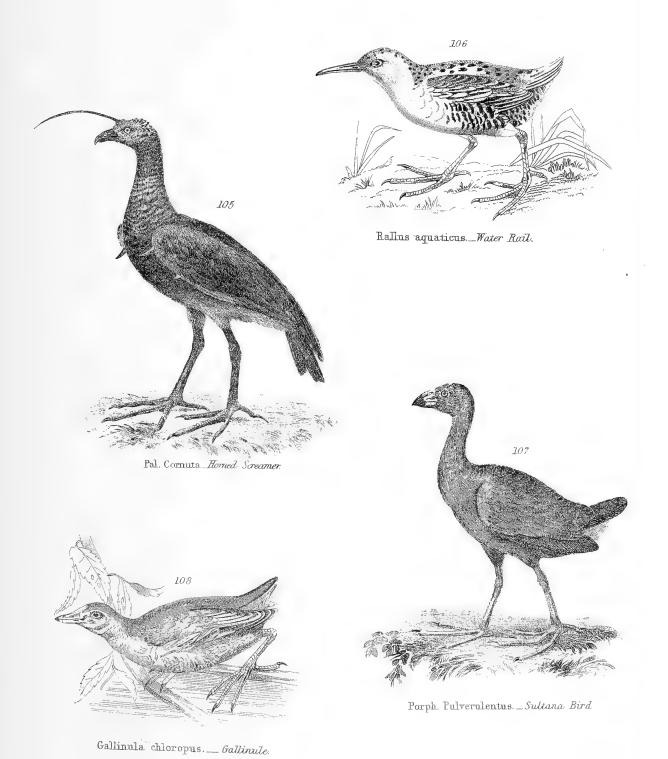


Common Snipe.



Parra Sinensis__Chinese Jacana.



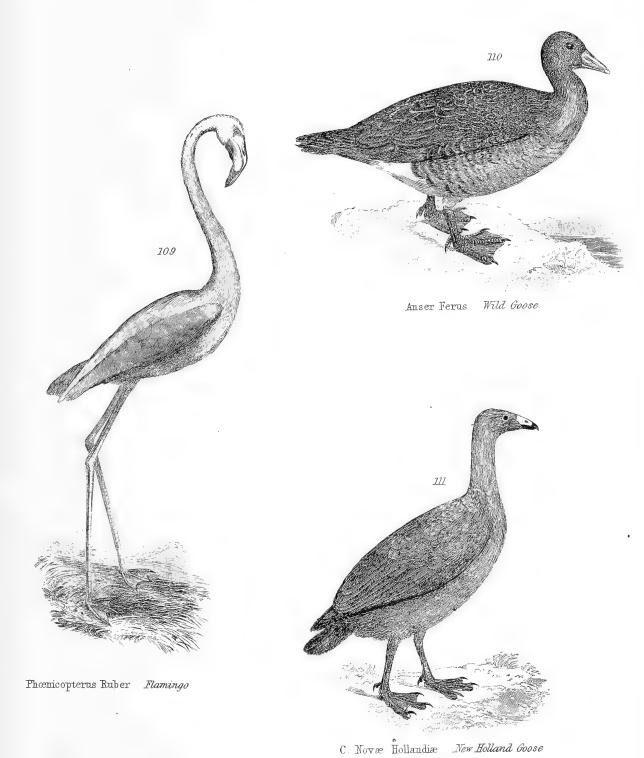




Order Natatores

Genera Phænicopterus, Anser. Cereopsis.

Family Anatidæ

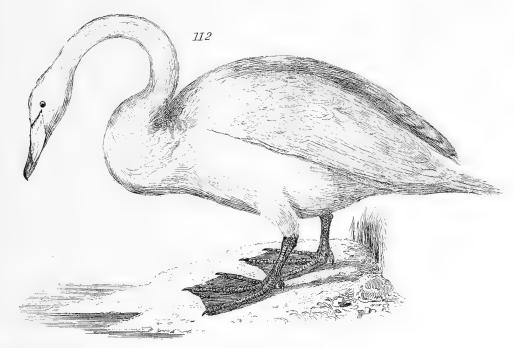


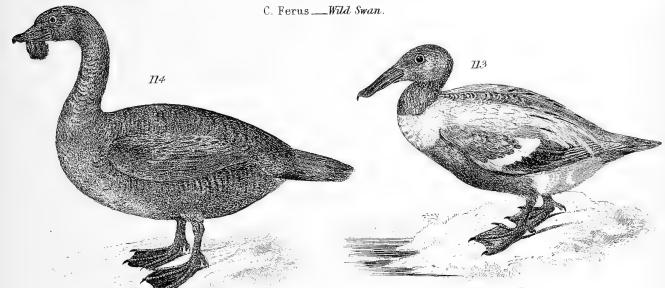
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Order Natatores.

Genera Cygnus, Spatula, Hydrobates, Mergus,

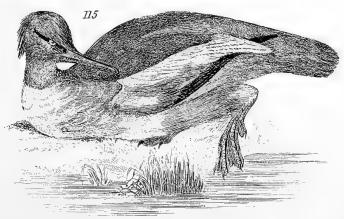
Family Anatidæ



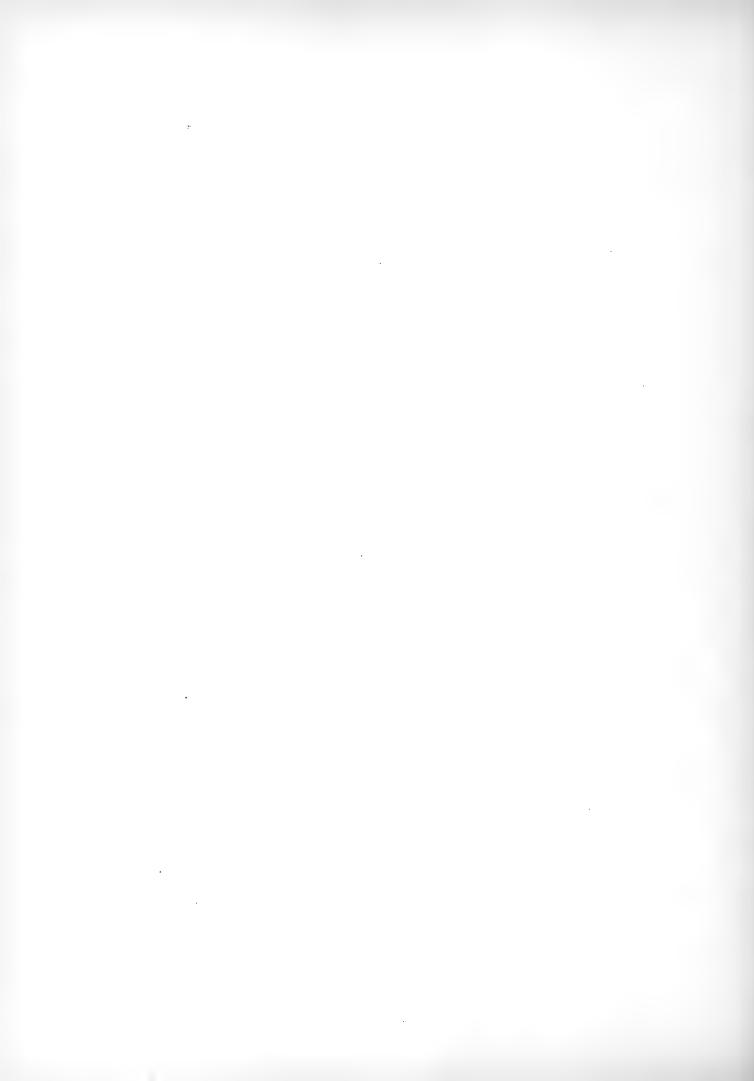


H. Lobatus ___ Lobated Duck.

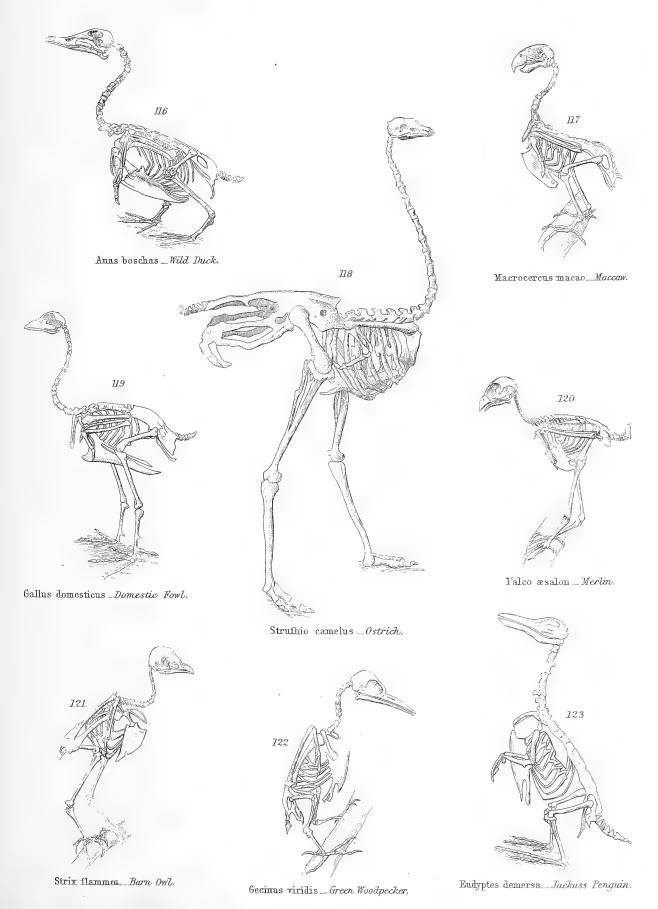
S. Clypeata Shoveller



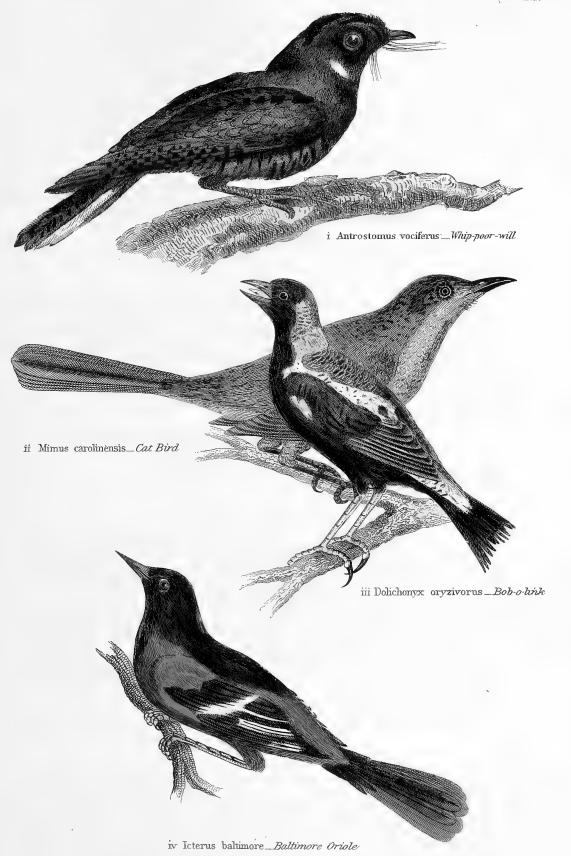
M. Merganser__ Goosander



Skeletons.

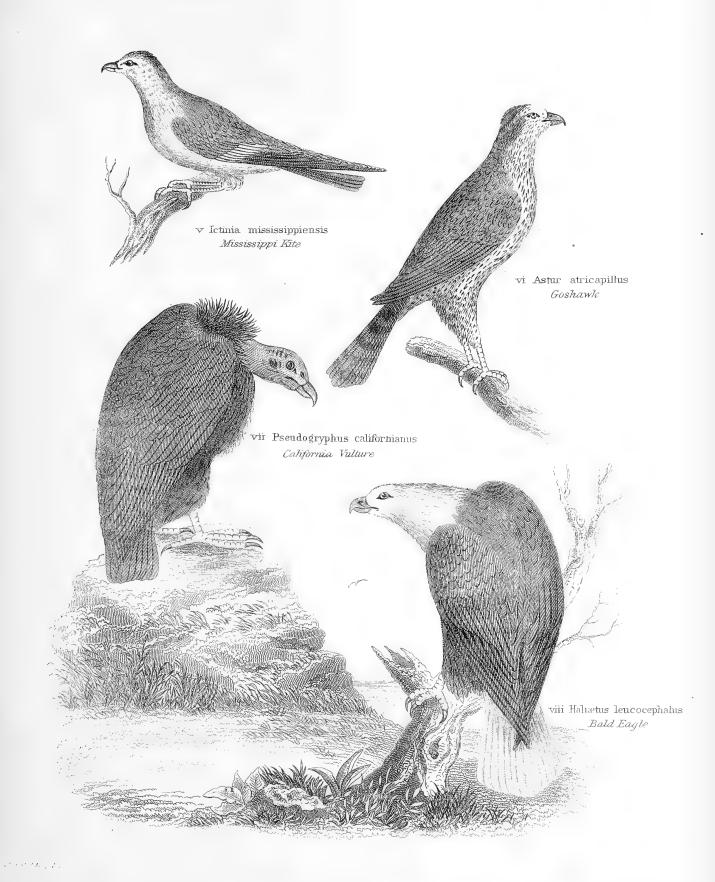


Families | Caprimulgidæ | Sturnidæ | Turdidæ





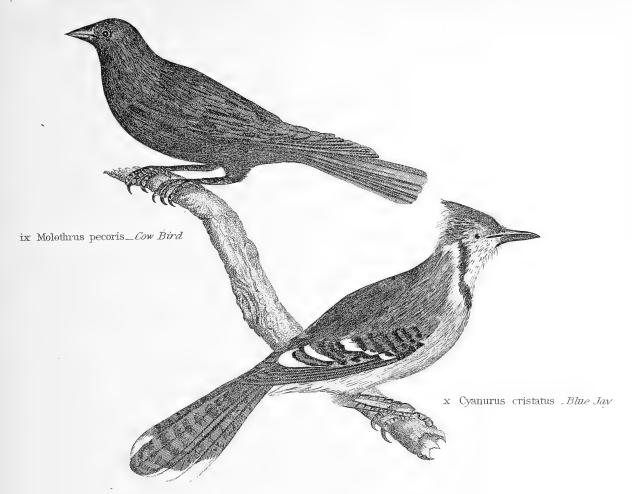
 $\mathit{Families} egin{cases} ext{Falconidæ} \ ext{Vulturidæ} \end{cases}$

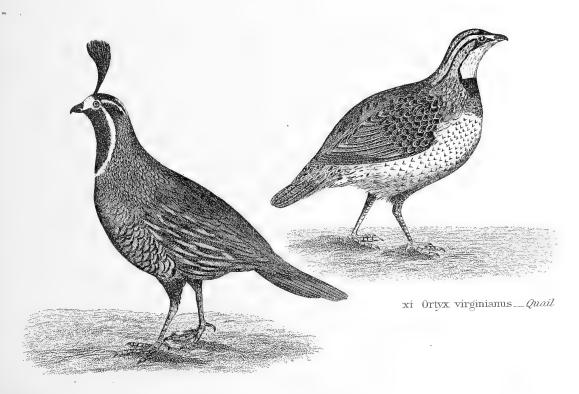


Orders | Insessores | Rasores

BIRDS.

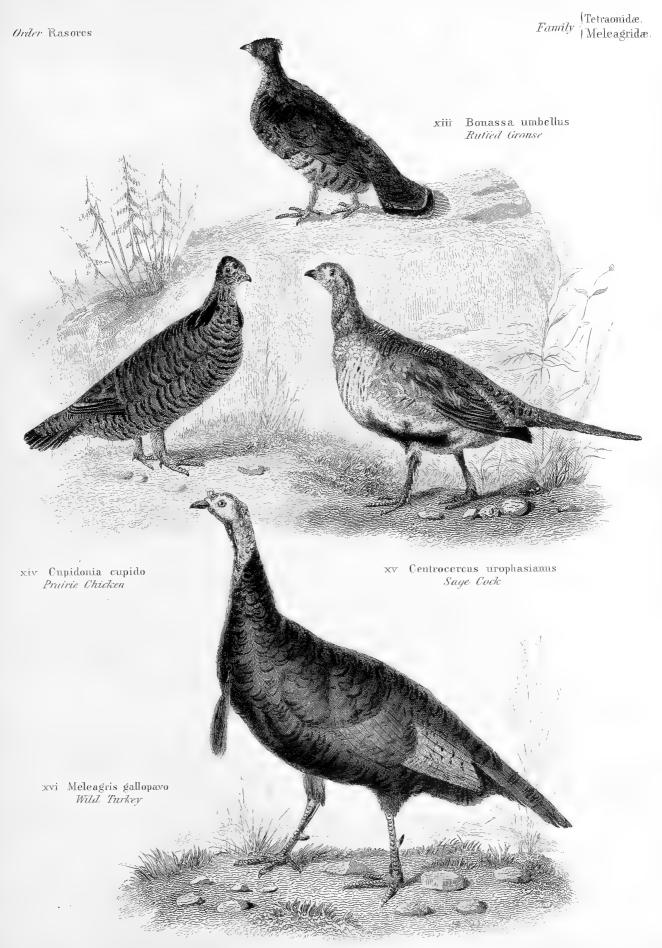
Families | Tcteridæ Corvidæ



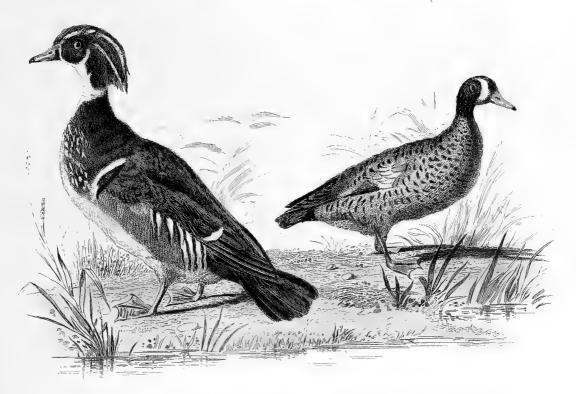


xii Lophortyx californicus __California Quail



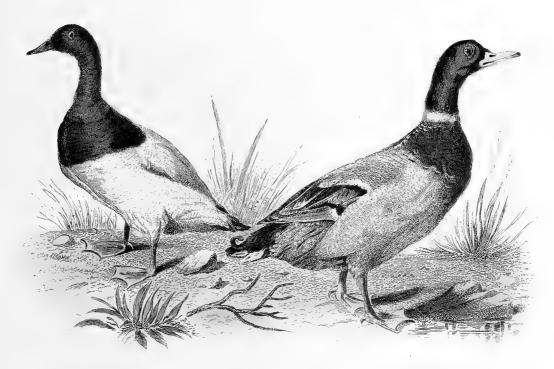






xviii Aix sponsa_Wood Duck.

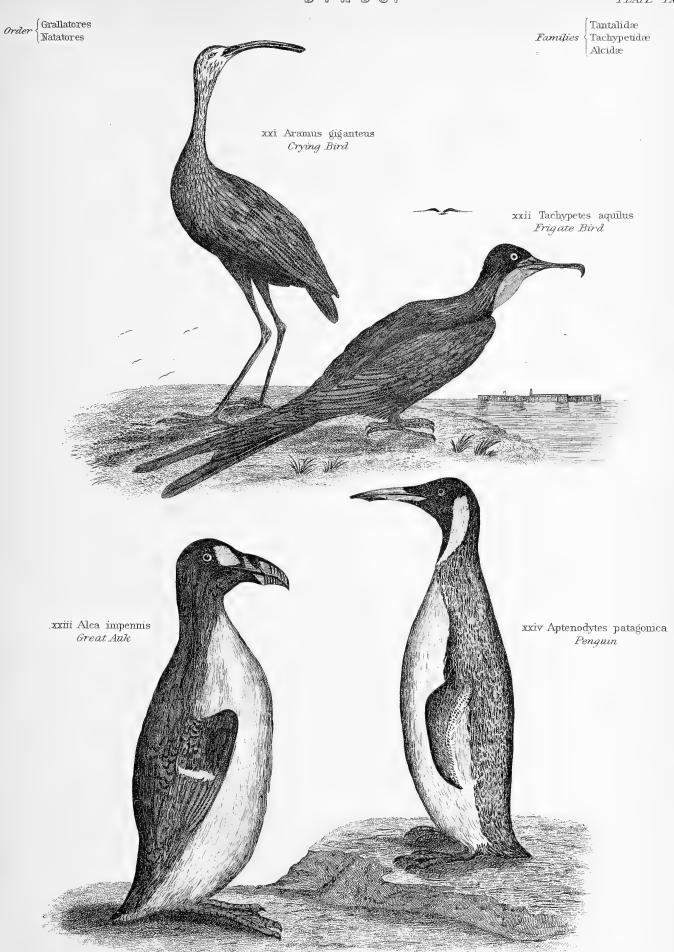
xvii Querquedula discors_Bluc-winged Teal



xx Fuligula vallisneria_Canvass-back Duck.

xix Anas boschas_ Mallard Duck.

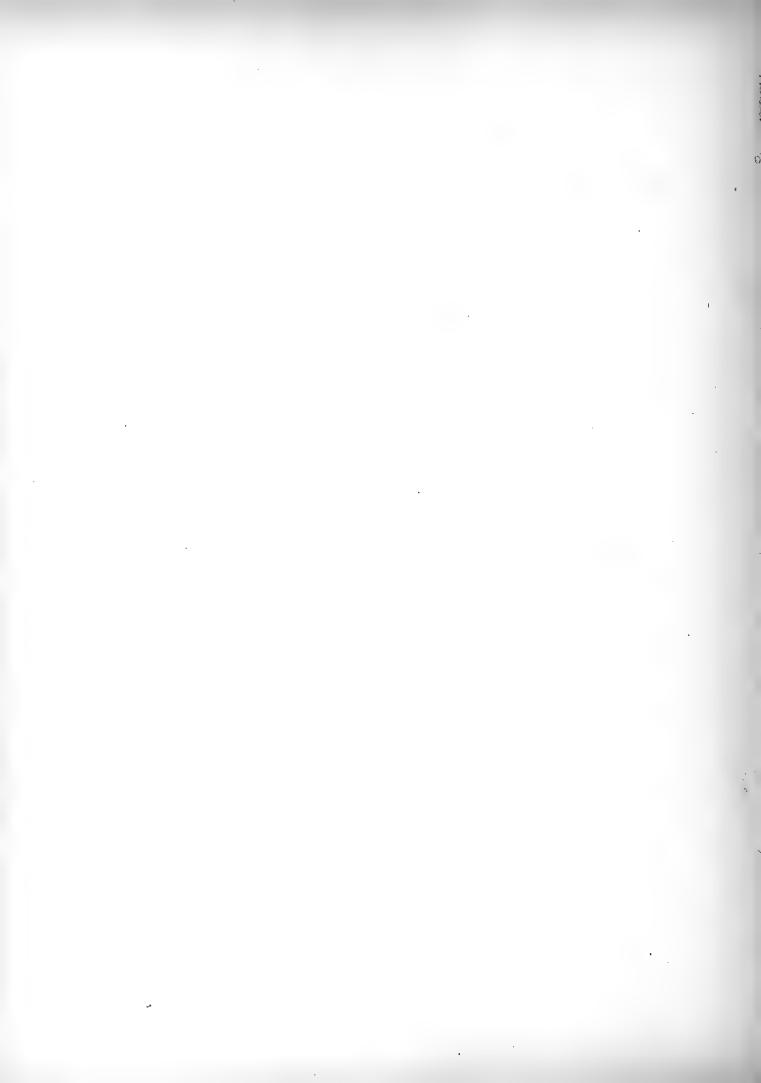
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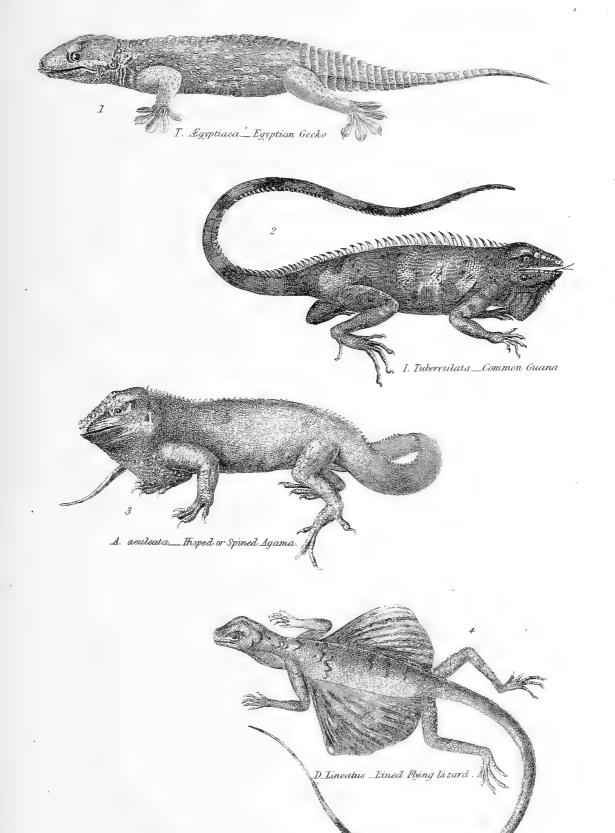
REPTILES.

Sub order Leptogloss æ/Slender tongues/ Genera Monitor Lacerta Pseudopus Pygopus, Scincus, Seps. Order Sauria (Lizards) M. Niloticus_Nilotic Monitor. L.Ocellata_Great Green or Eyed Lizard. Pseudopus Pallasii_ False Foot. P. Lepidopodus ___ Common Rump-foot. Scincus officinalis_Officinal or Common scink. Hind Leg Fore Leg Seps tridactylus_Cicigna. Head of Sank



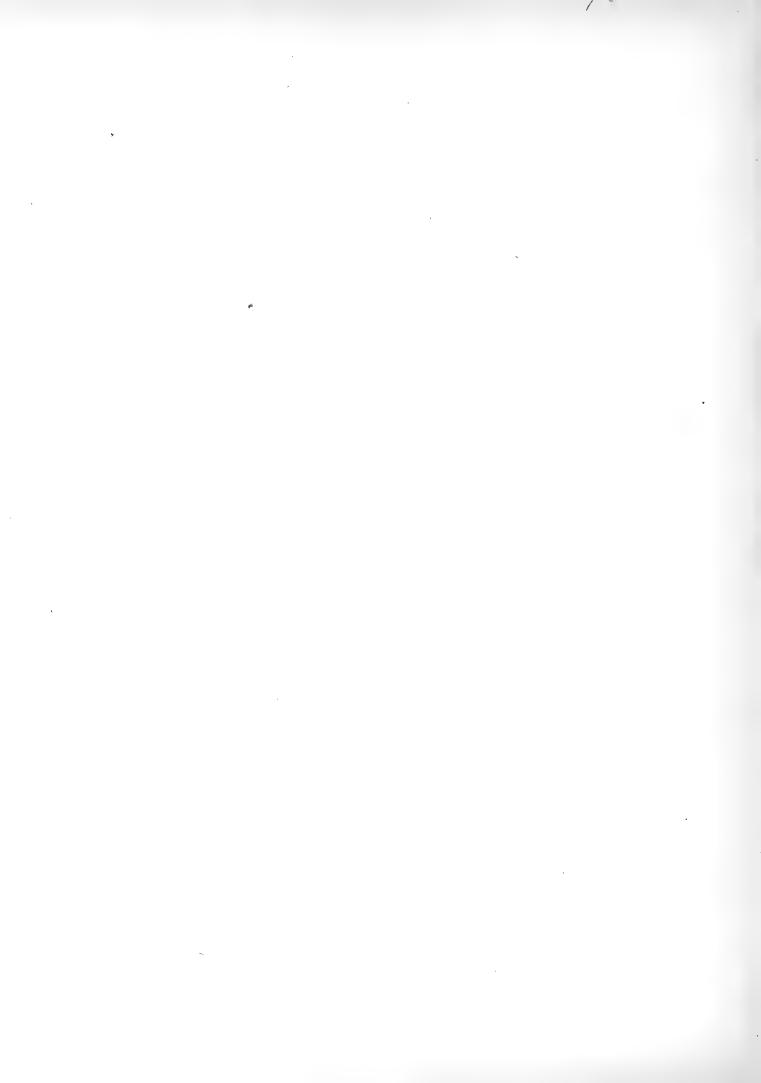
Order Sauria/Lizards.

Genera Tarentola Iguana Agama Dracunculus. Sub order Pachyglossa/Thick tongues



J N. Allan, Lith

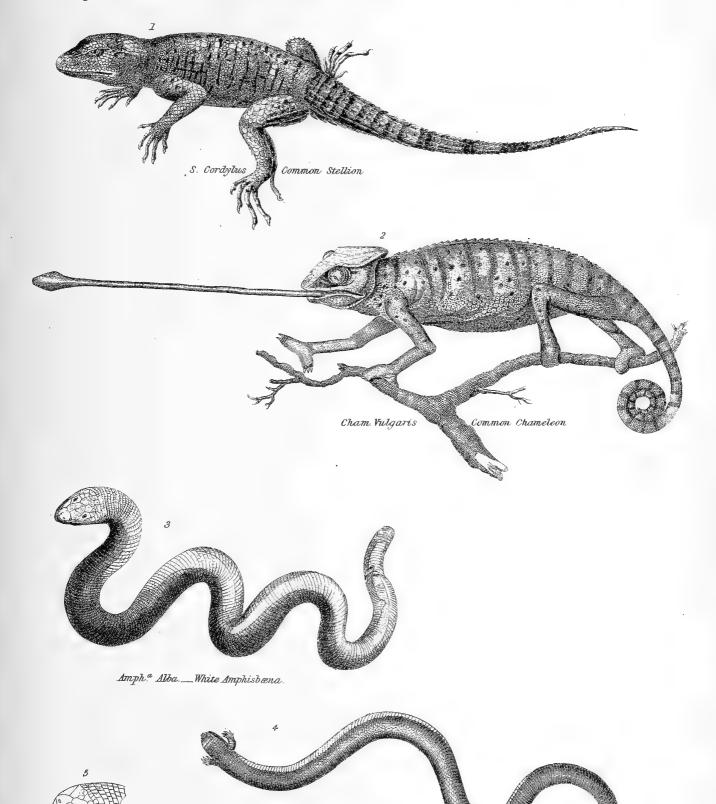
C.C. Pyne, del.



Orders { Sauria (Lizards) Amphisbænia (Double Wathers)

Genera Stellio, Chameleo, Amphisbænia, Chirotes.

Sub order Pachyglossæ (Thick tongues)



Head of Chirotes

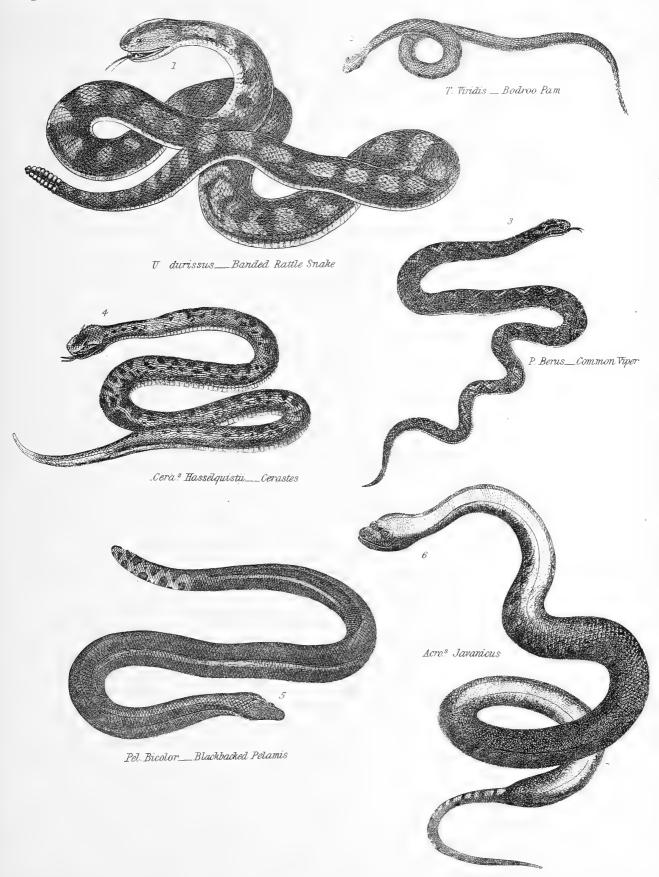
Chir Lumbricoides ___ Mexican Chirotes.



Order Ophidia (Serpents)

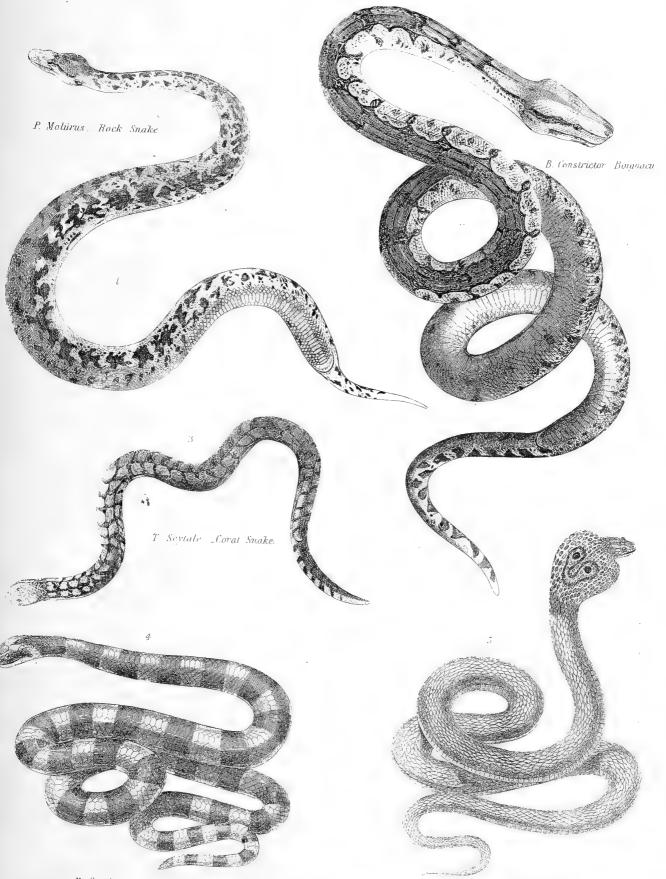
Genera Uropsophus, Trimesurus, Pelias. Cerastes, Pelamis, Acrochordus.

Sub order { Viperina Viperine Serpents | Colubrine Scotubrine Serpents |



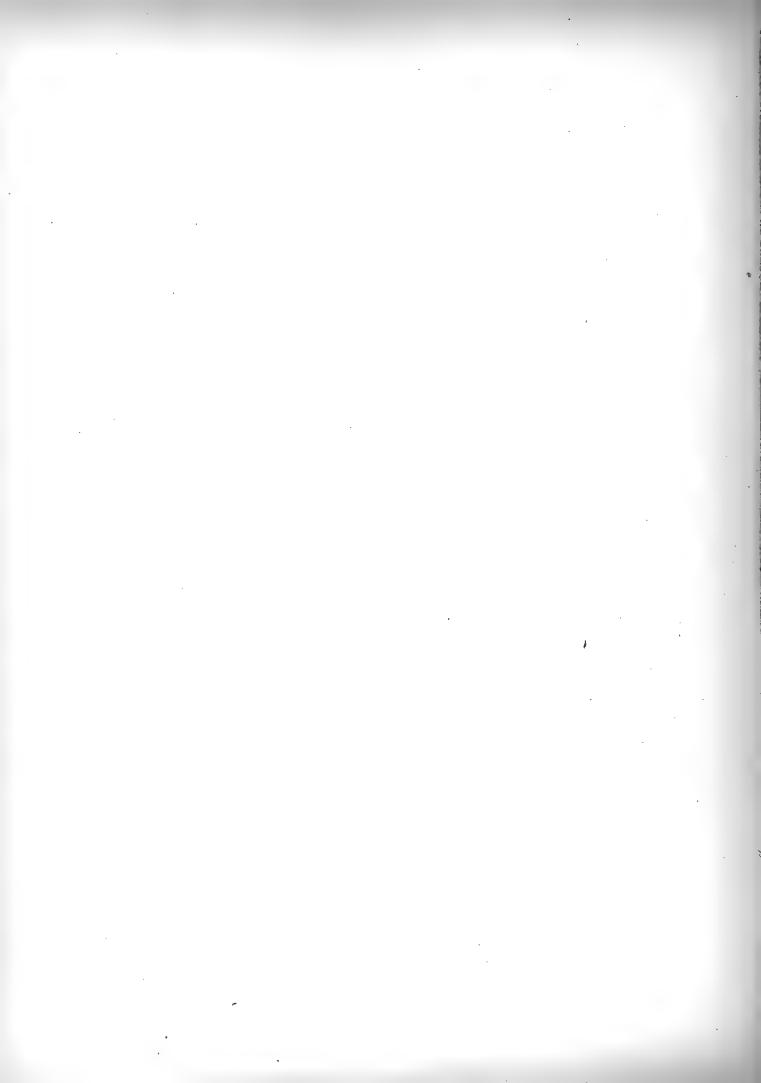
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Order, Ophidia. (Serpents) Genera. Python. Boa. Tortrix. Bungarus, Naja Sub Order Colubrina. (Colubrine Serpents)



B. fasciatus ... Banded Bungarus.

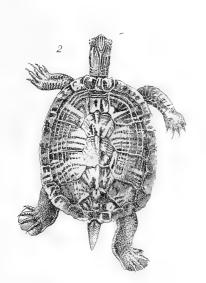
N. tripudians . . Cobra de Capello or Spectacled Snake



Order Indiama (Tortoises & Turtles) Genera Testudo Emys Cistuda Cheloma Chelys Tyrse



T. Græca___ Common Land Tortoise.



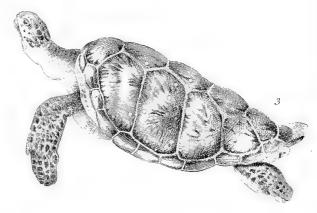
E. Scripta__Written Tortoise



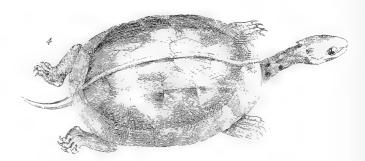
Chelys Matamata_matamata or Fimbriated Tortoise



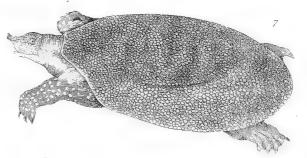
Elongation of the snout



Chel. Viryata_Carr



C. Trifasciata __Three streaked Bax Tortois



T. Niloticus Tyrse or Soft Tortoise of the Nile.





J. Scherops. Spectacled Alligator



IT Wraco volans Common Plying Lizard, Magnified.

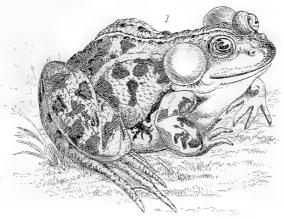
4 Charneleo vulgaris. Common Chameleon.

18 Boa constrictor_Boiguacu (Hind Leg)

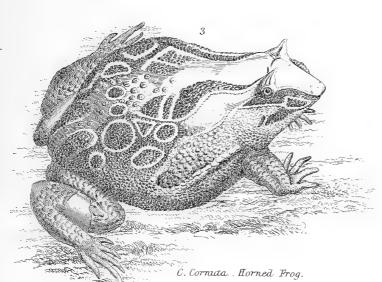


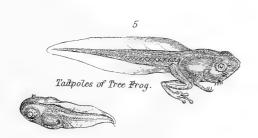
Genera, Rana, Ceratophrys, Hyla.

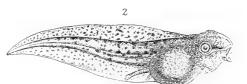
Sub-order, Salientia. (Leapers)



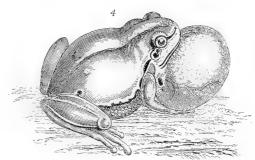
R. Esculenta_Edible or Green Frog.







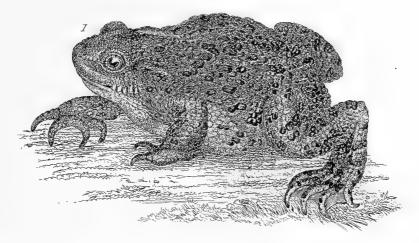
Tadpole of Green Frog.



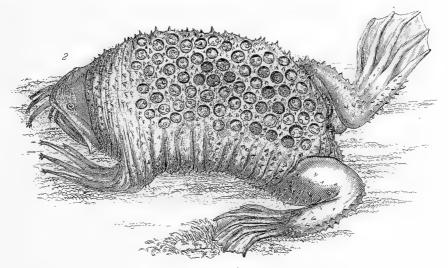
H. Arborea Common Tree Frog.

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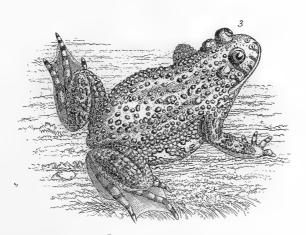
Genera Bufo, Pipa, Bombinator. Sub order Salientia (Leapers)



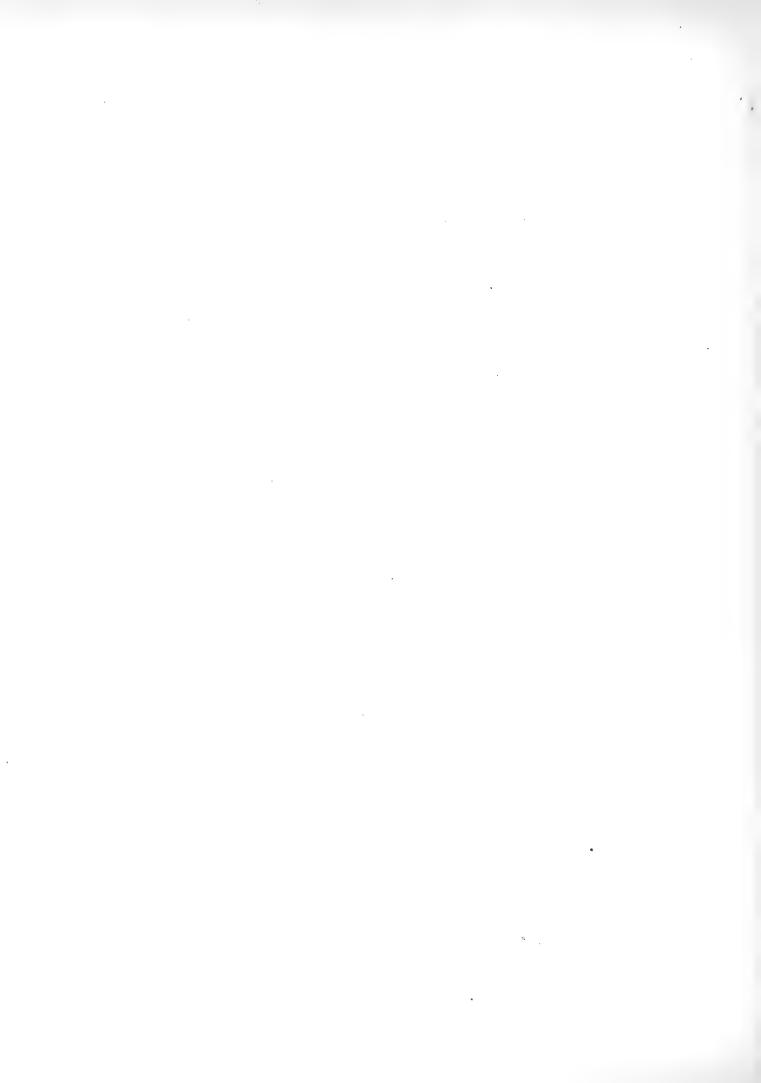
B. Vulgaris___Common Toad.



P. Americana_Surinam Toad.



Bom. Igneus___Yellow bellied Toad





P. Harrida Hellbender or Mud Devil.

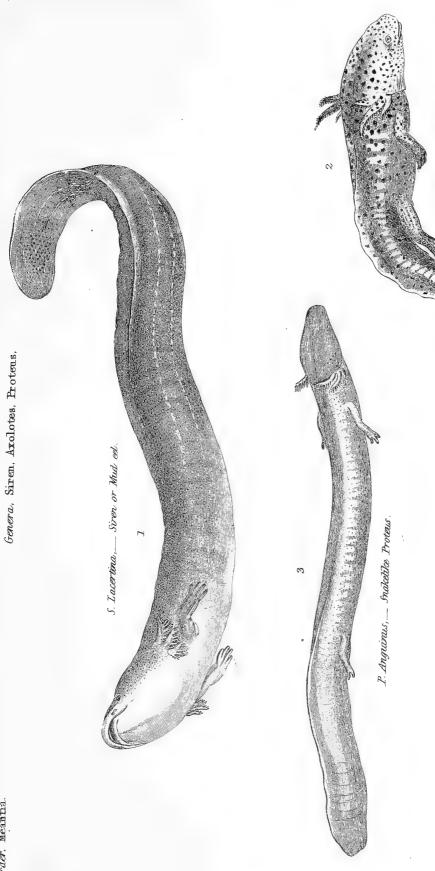


T. Cristatus. Common Warty Newt.



S. Maculosa_Common or Terrestrial Salamander.





6enera. Cæcilia.

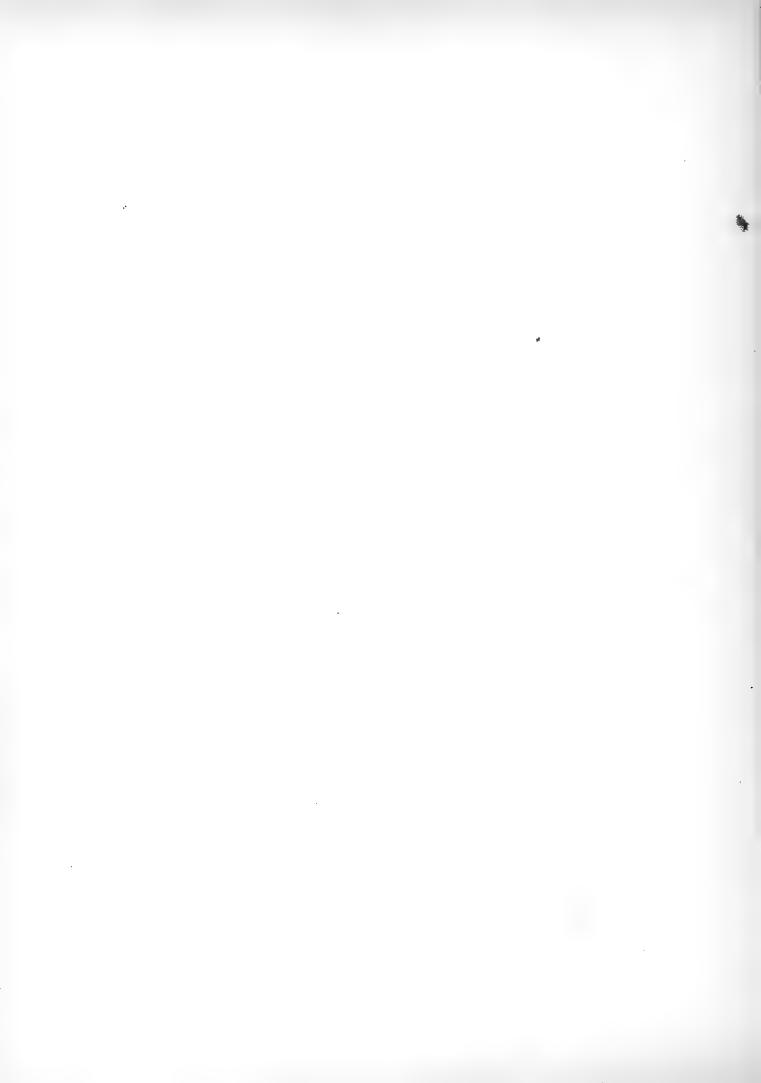
Order, Psendophidia.

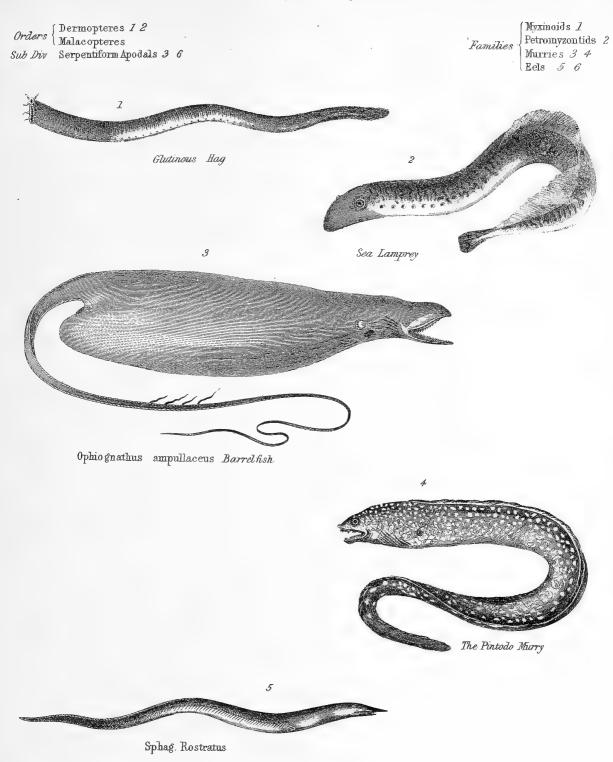
A. Mexicanus. ... Axolotl.

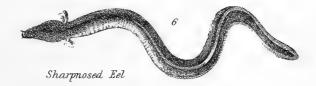


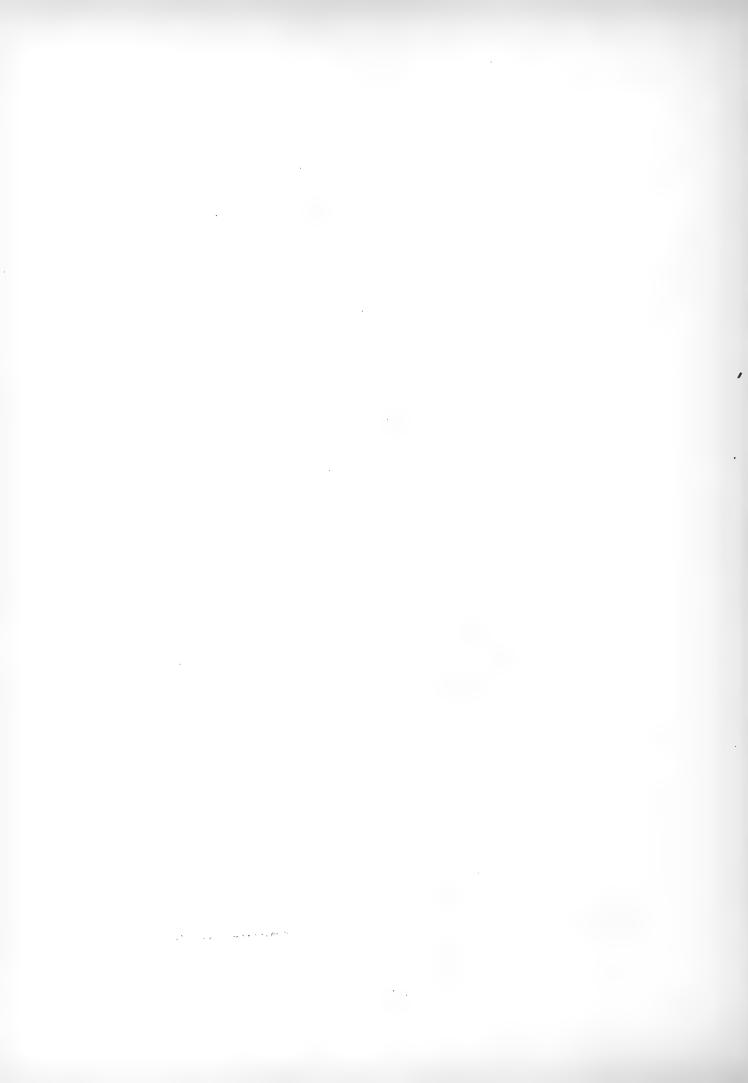
C. Gutinosus _Glutinous Cacilia.

J.N Allan. Lith





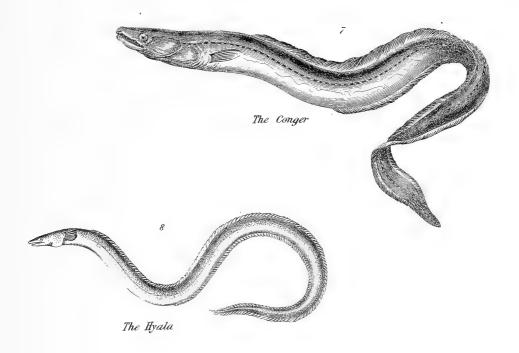


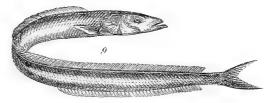


Order Malacopteres
Sub div. | Serpentiform Apodals 7 8 | Jointed-rayed Apodals 9 II

Families

7 Congers
8 Ophismes
9 Ophidians
W Ammodyles
U Gymnotes





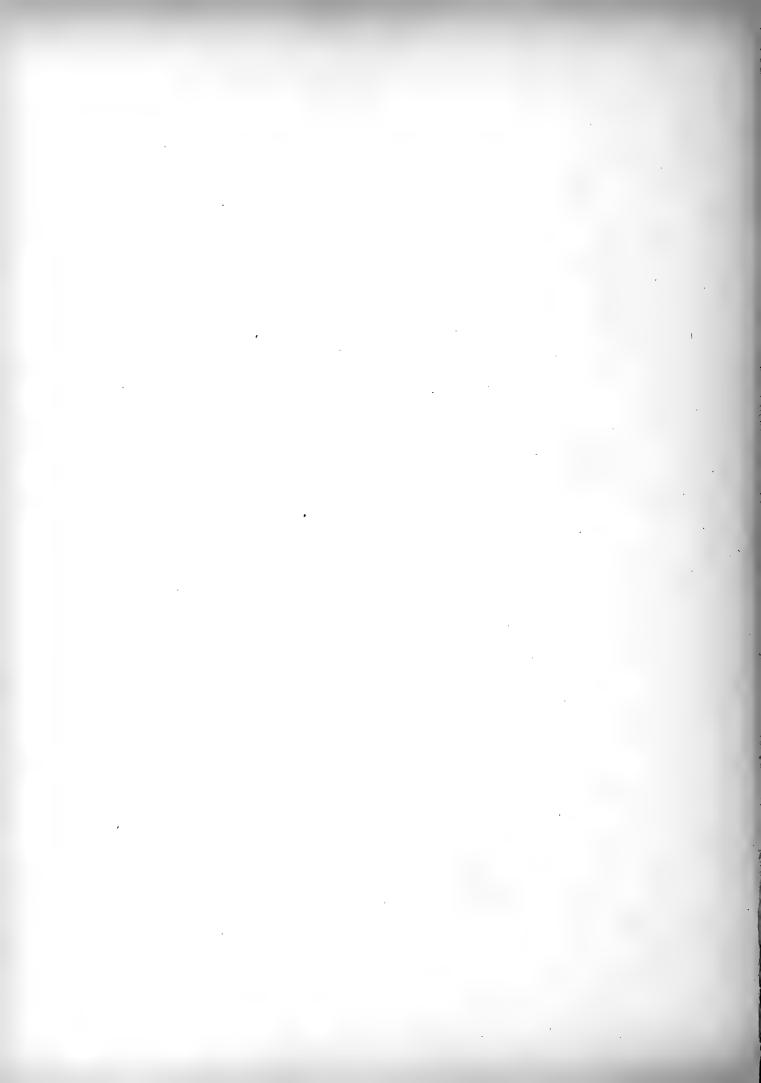
The Sand Launce



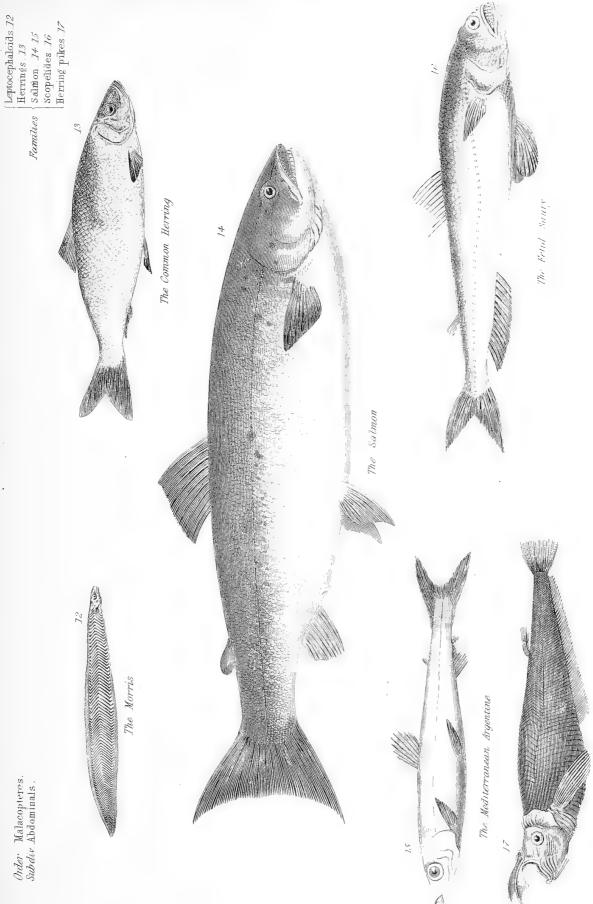
Montagu's Gymnele



The Evenlipped Gymnote



Order Malacopteres. Subdiv. Abdominals.

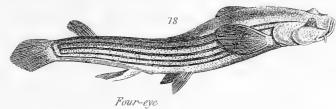


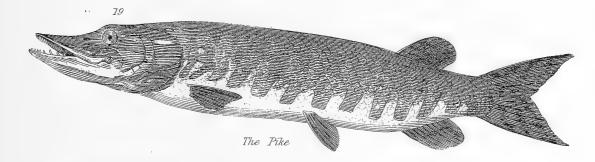
The Cayenne Odontognathe

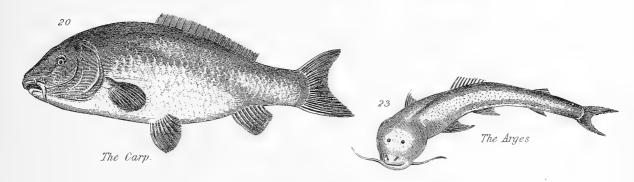
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Order Malacopteres
Sub div. Abdominals Cont

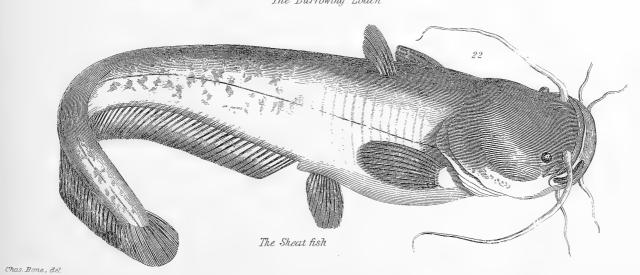
Families Cyprinodonts 18
Pikes 19
Carps 20
Loaches 21
Siluroids 22 23

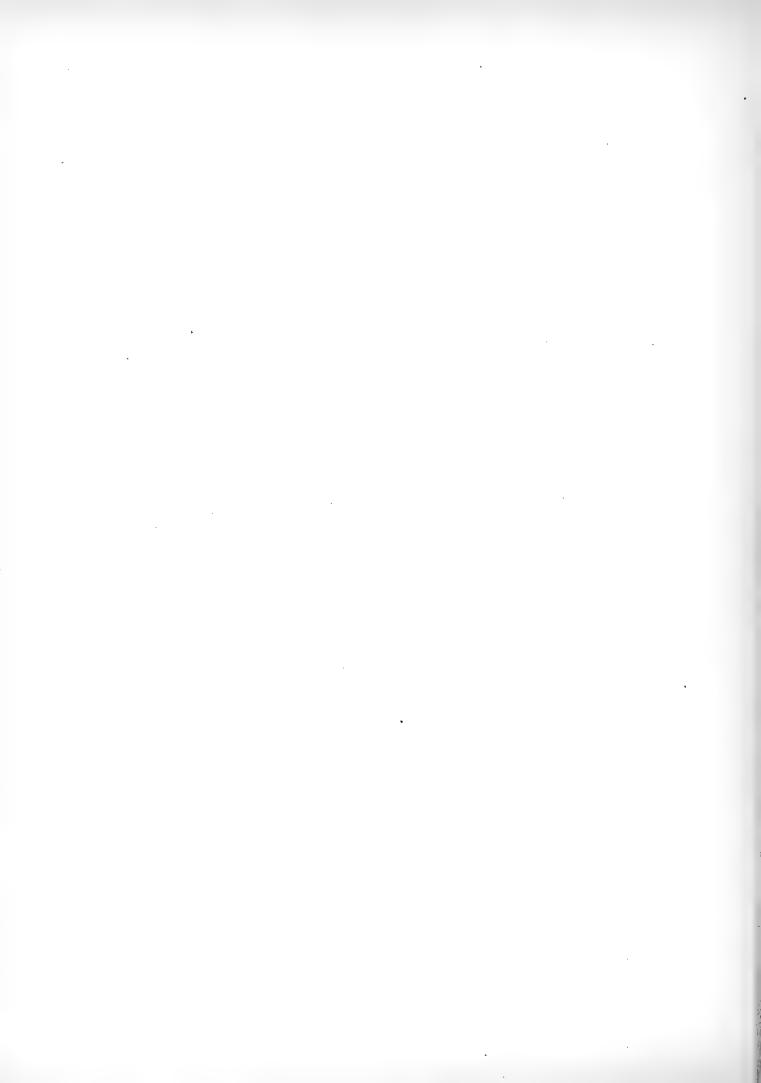




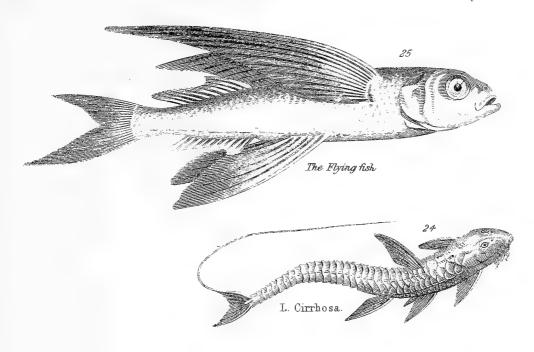


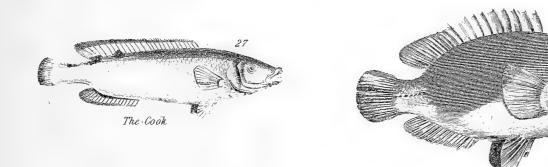


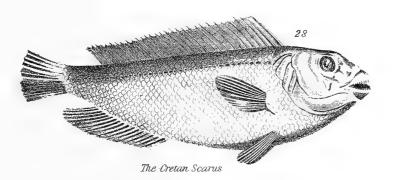




Order Pharyngognaths 25 28







The Saddlefish



[Gadoids. 29, 30.

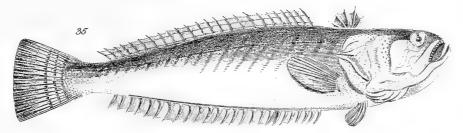
Families & Flounders, 31, 33. Order, Anacanths. Disk heads, 34. 29 Cod.Mediterranean Fork-beard. Common Flounder. Whiff. 34 Common Sole.

Common Remora.

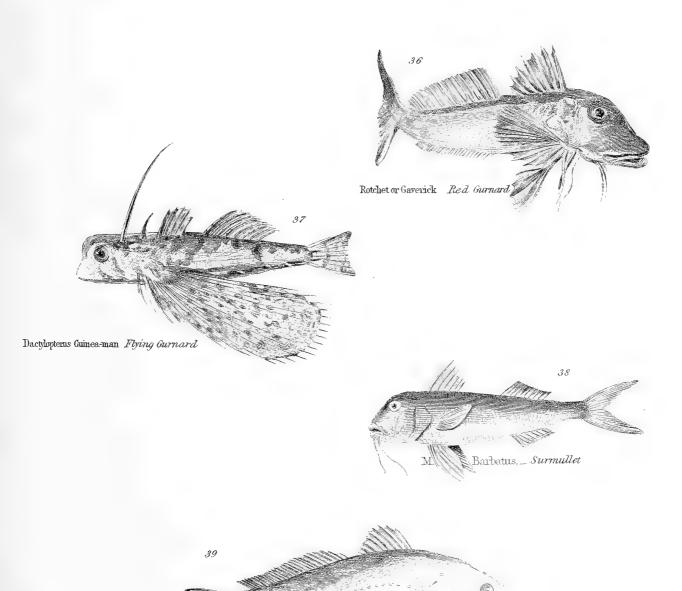
Sub order Acanthopteres.

Families

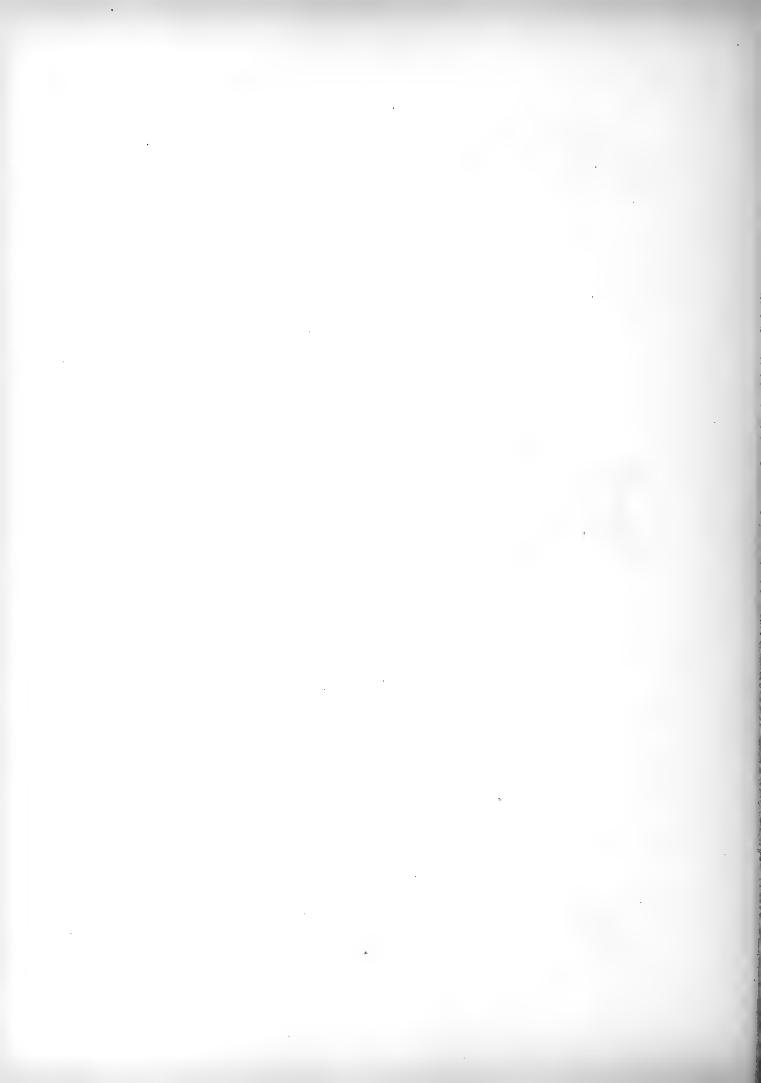
Uranoscopians. Sclerogenids. Surmullidans. Sciænoids.

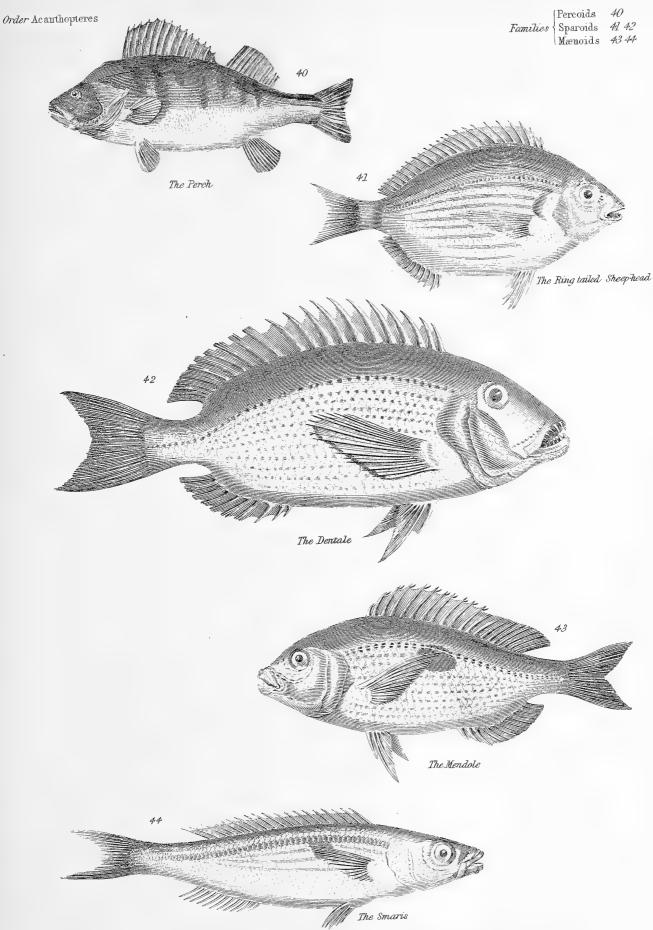


Trach. Draco, _ Common Weever.



Sciæna Aquila Maigre

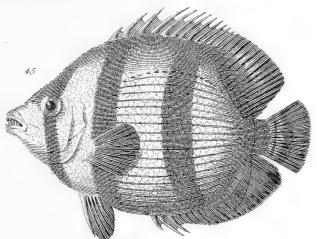




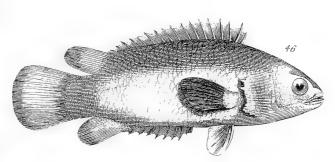


Order Ctenord. Acanthopteres

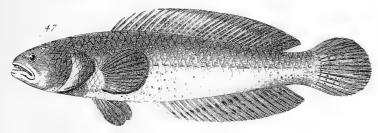
Families Chætodonts 45
Labyrinthibranchs 46 47
Mugiloids 48



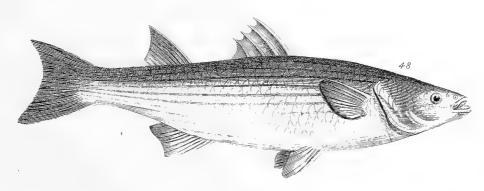
Streaked Chetodon



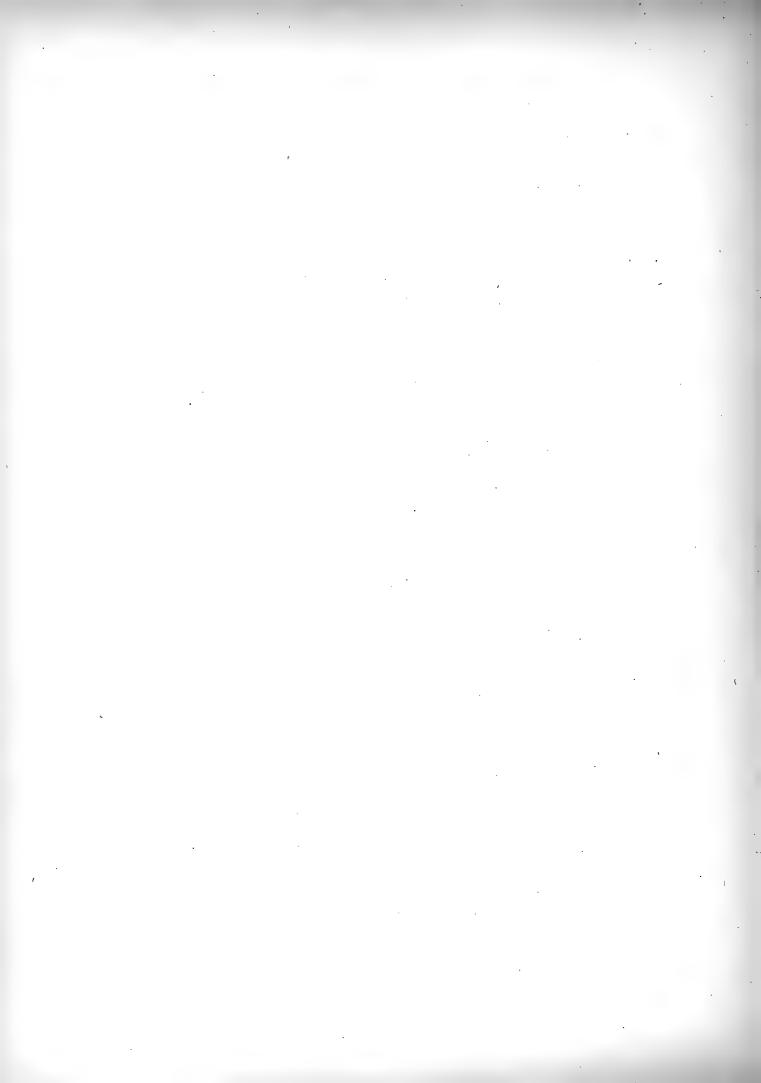
Climbing Fish.



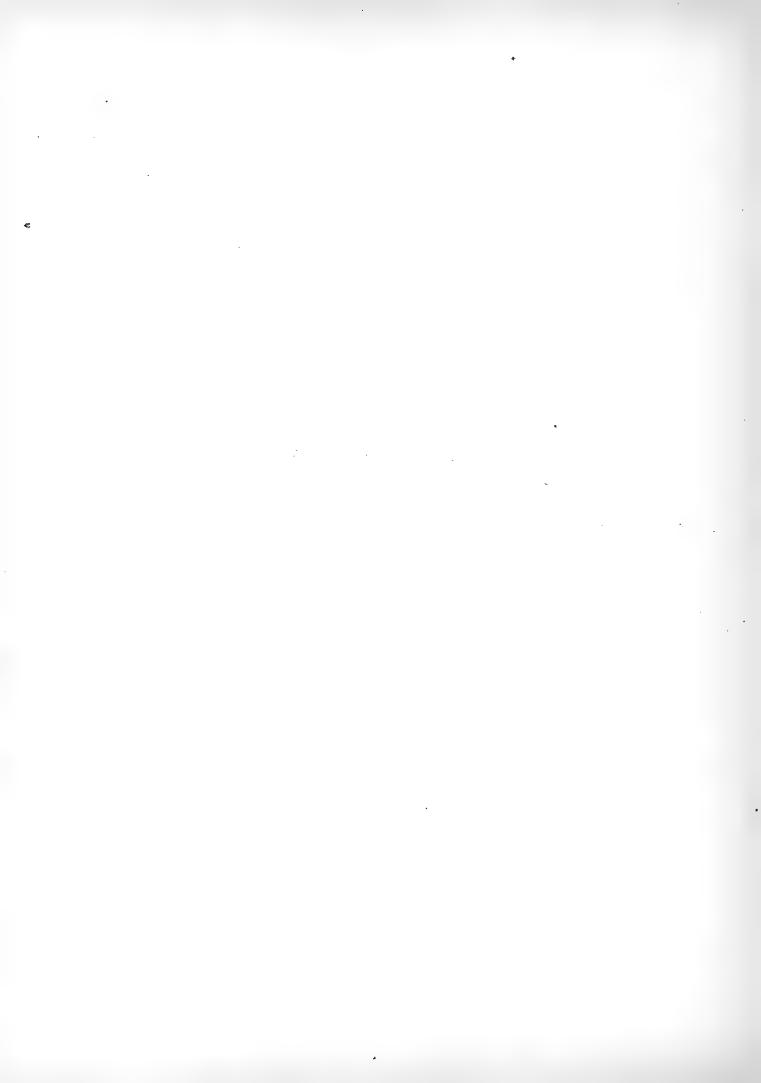
Dotted Snakehead.

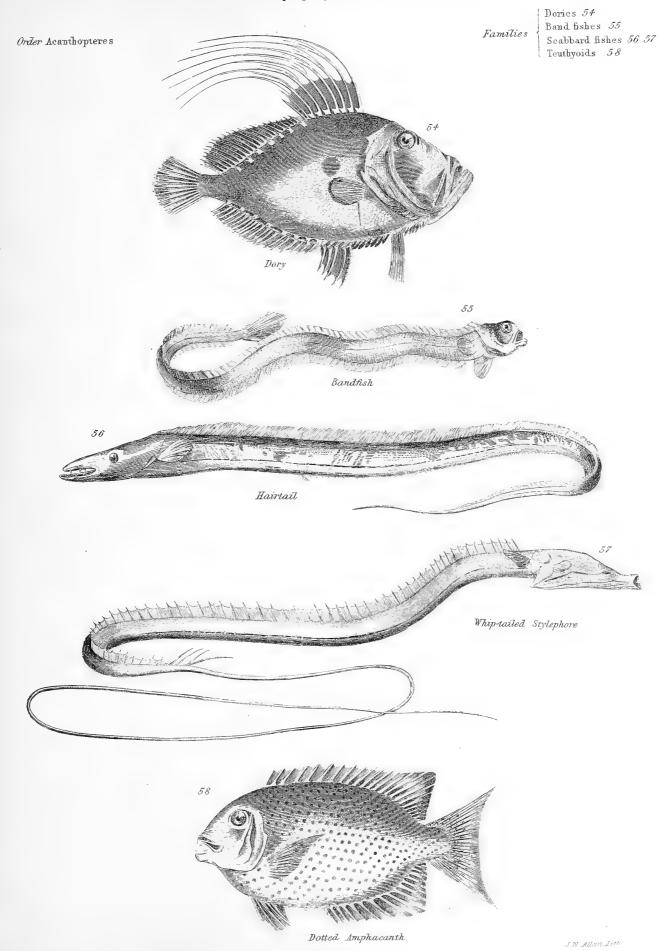


Chas. Bone, del. Grey Mullet.



Fomilies Scombrides 51 52 Xphiads 53 Scomber Scombrus Mackerel Tobaccopipe-fish Xiphias gladius Swordfish 23 43 20 Sea Snipe Black foot. Order Cycloid Acanthopteres 57 52 53

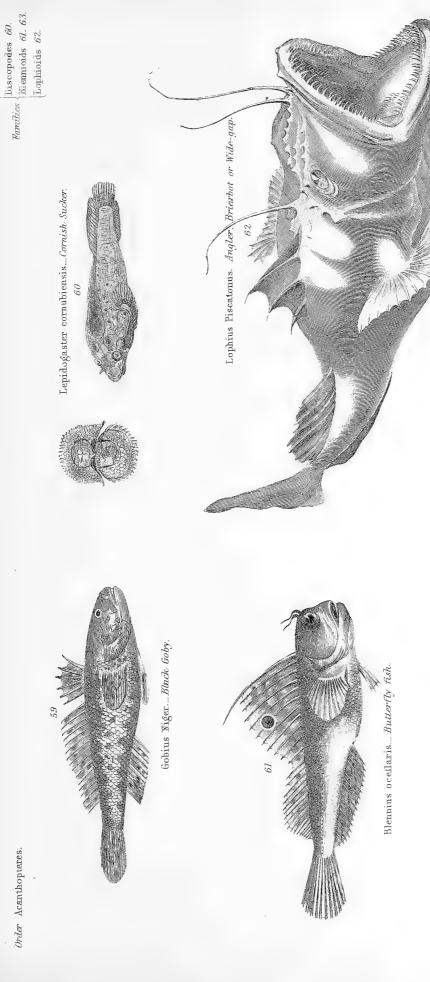


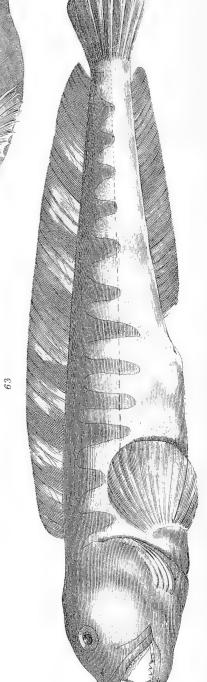




Gobioids 59.

Order Acanthopures.





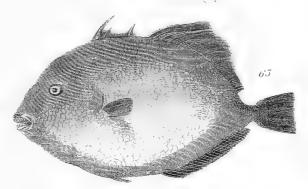
Anarthichas lupus._Wolf-fish.



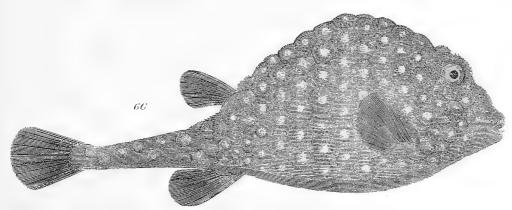


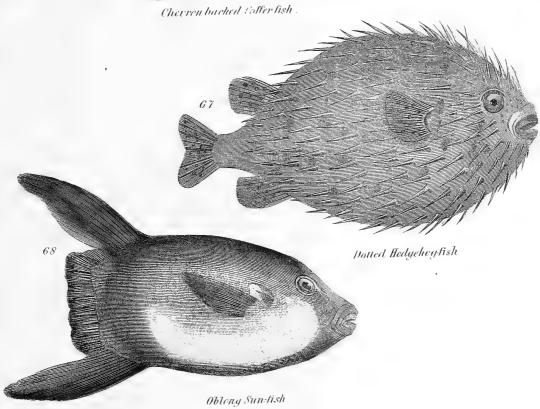


Surinam Todash



Pig faced Triggerfish

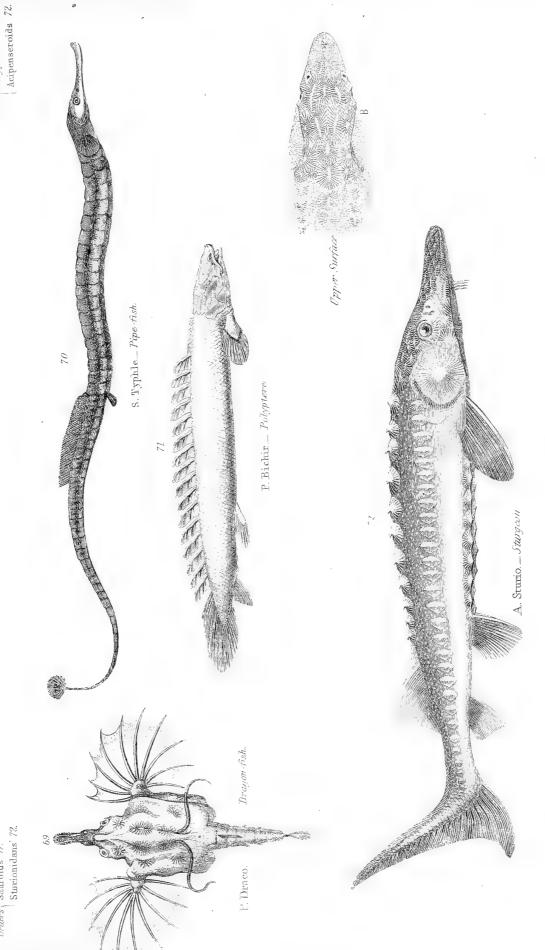




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Pegasides. 69.
| Syngnathids 70. | Polypterids. 77.

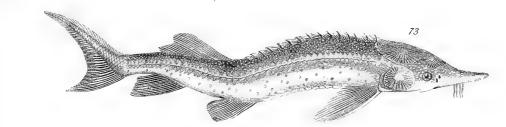
Lophobranchs 69 70.
Orders, Sauroids 77.
Sturionidans 72.



VIRTUE & YORSTON, NEW YORK.

Under Surface.

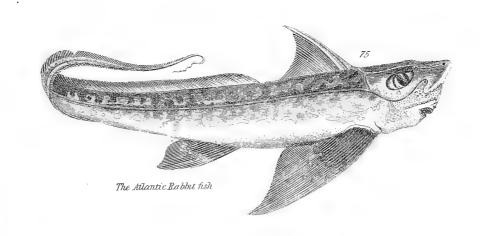
Orders | Ganoids 73 74 | Holocephali 75 76 Families Sturgeons 73 74
Chimeroids 75 76

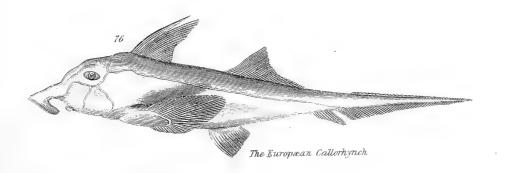


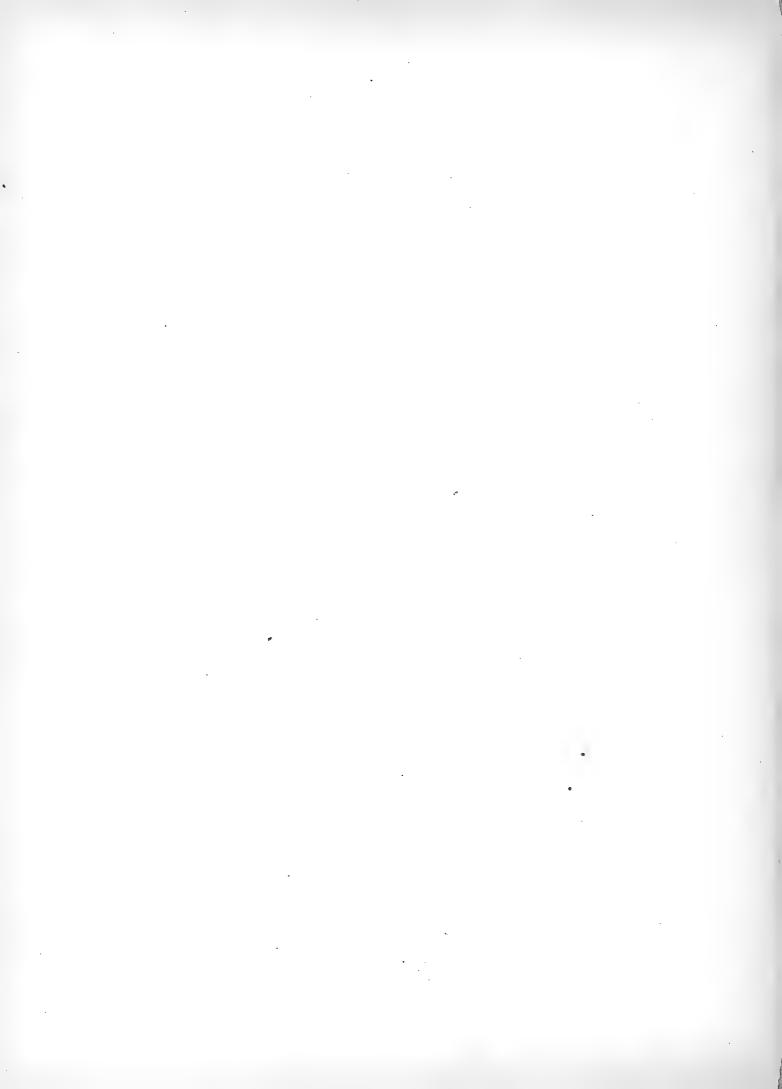
The Sterlet



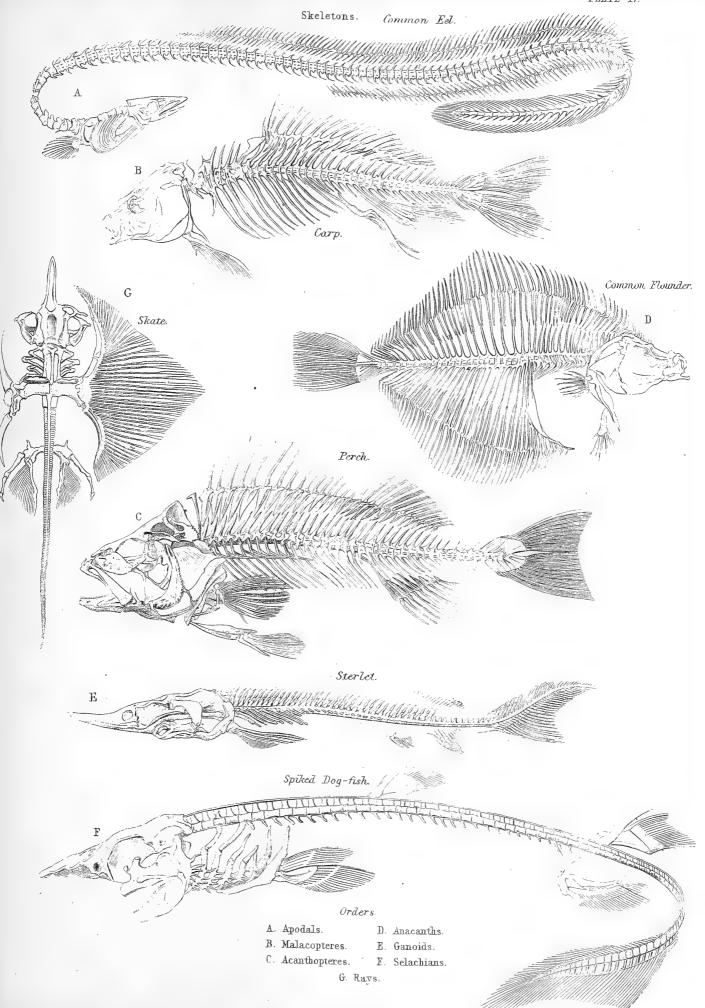
The Paddle fish

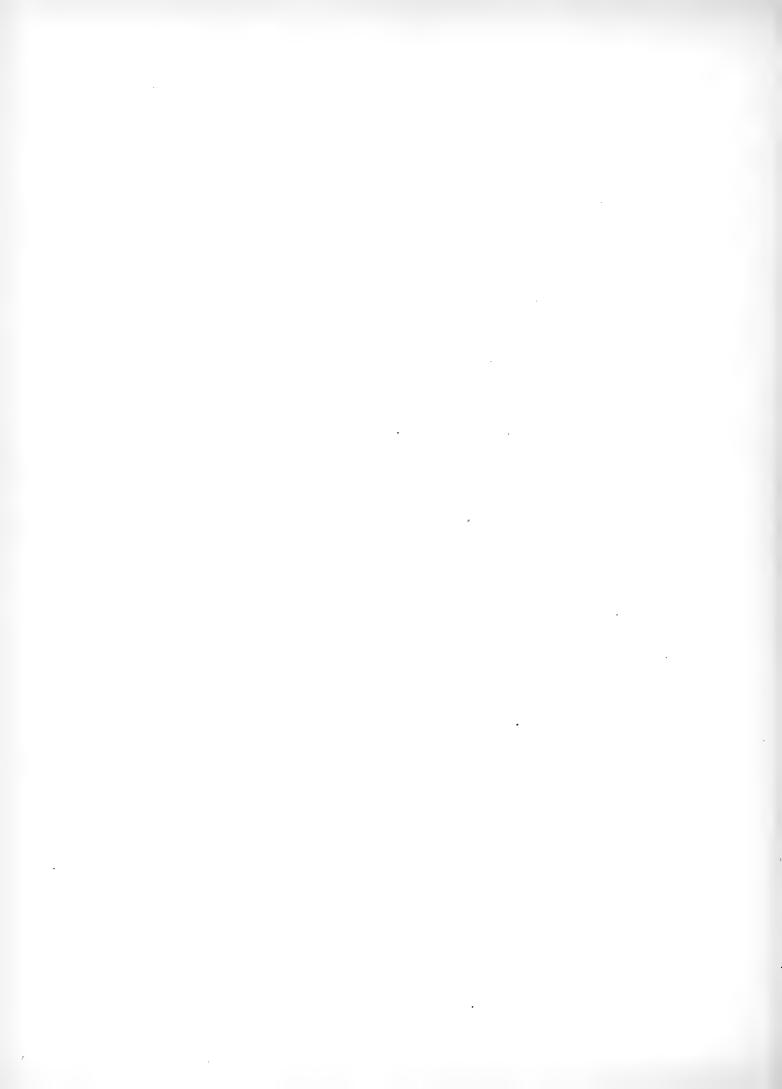


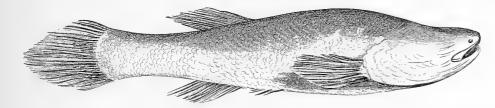




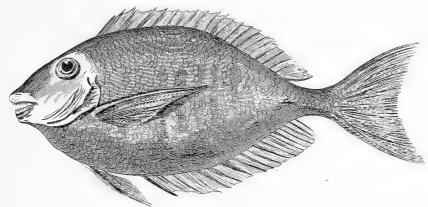
T. Narke. Spotted Torpedo.



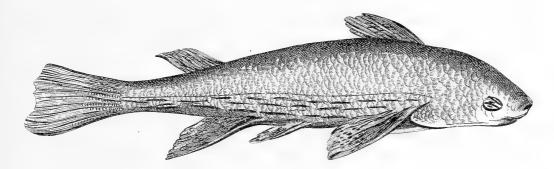




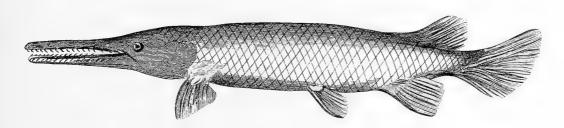
i Amblyopsis spelæus. Larger Blind-fish.



 $ii\ A can thurus\ chirurgus\ _Surgeon\ fish.$



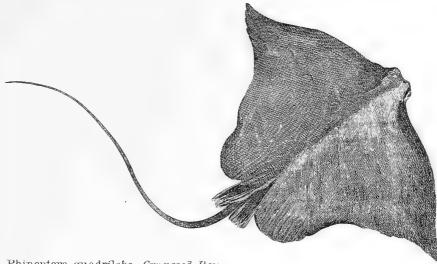
iii Anableps tetrophthalmus $_Star$ -gazer.



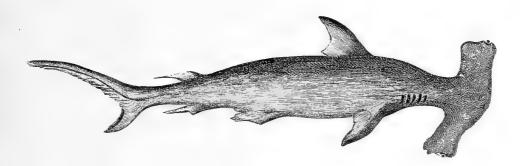
iv Lepidosteus osseus_GarPike.



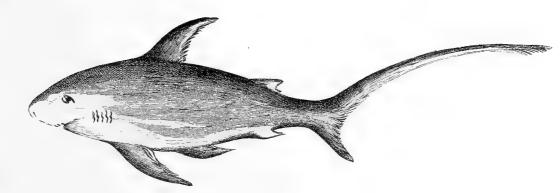
Family Rayiidæ Squalidæ



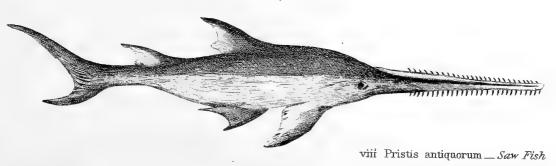
v Rhinoptera quadriloba_Cownosed Ray



vi Zygaena malleus__*Hammer-head Shark*

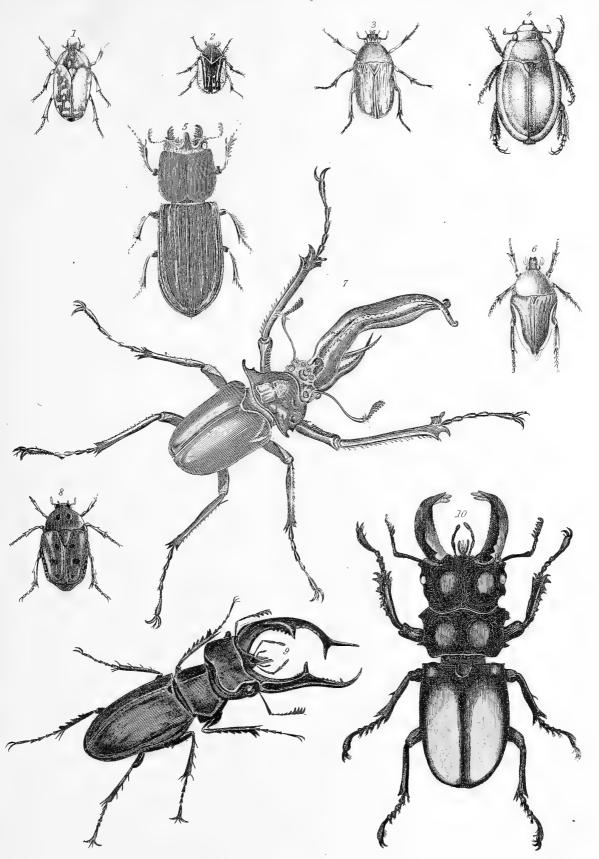


vii Alopias .vulpes _ Fox Shark



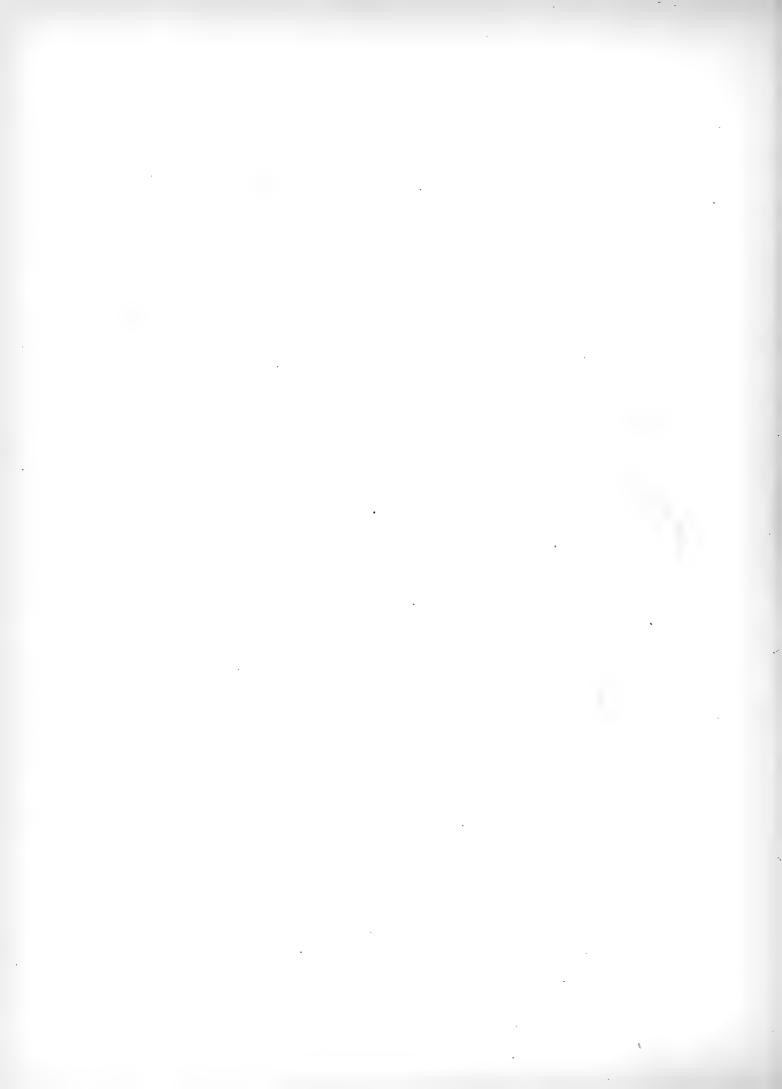


Order Coleoptera



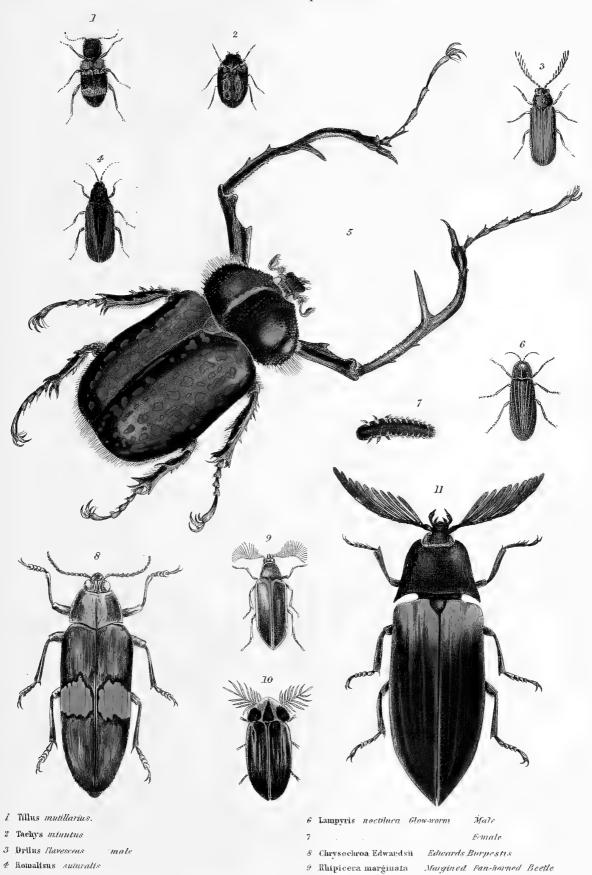
- 1 Schizorhina Emilia Emily's Green & yellow Bose Beetle
- 2 Clinteria Hoffmeisteri Hoffmeisters Rose Beetle
- 3 Trigonophorus Hookeri Dr Hooker's Rose Beetle
- 4 Calloodes Grayianus
 5 Passalus interruptus
- D. Gray's Calloodes

- 6 Oxythyrea Helena Helen's Abyssinian Rose Beetle
- 7 Chiasognathus Grantu Scissor jamed Beetle from Chiloe
- 8 Schizorhina Bassii Bass's Australian Rose Beetle
- 9 Lucanus Cervus Stag Beetle
- O Cladognathus Parryi Major Parry's Stag Beetle.



INTOMOLOGY.

Order Coleoptera.



W. Hepburn, dei

5 Cheirotouus Macleavii

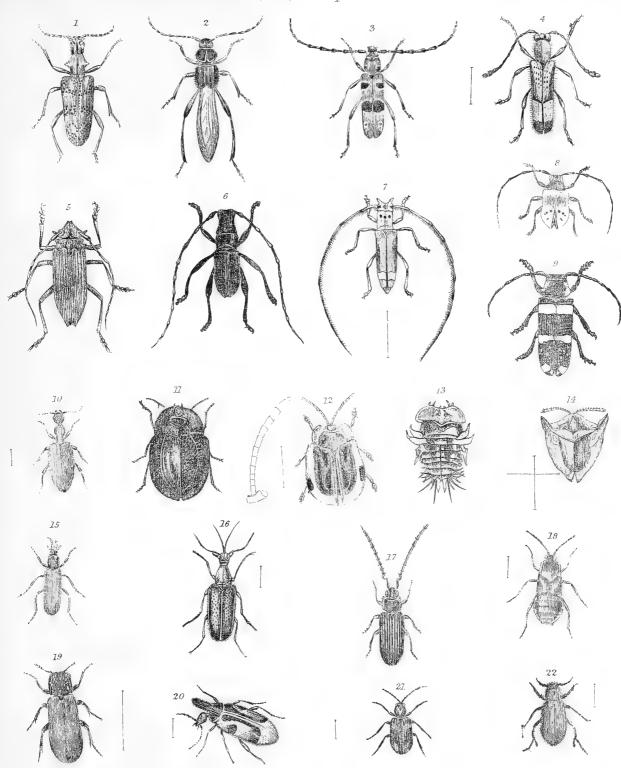
30 Lamprocera Laterillii . Zatreilles Glow-Worm

Il Oxynopterus Cumingit Philippine Island Great Click Beetle

Macleay's long armed Leaf-Boelle

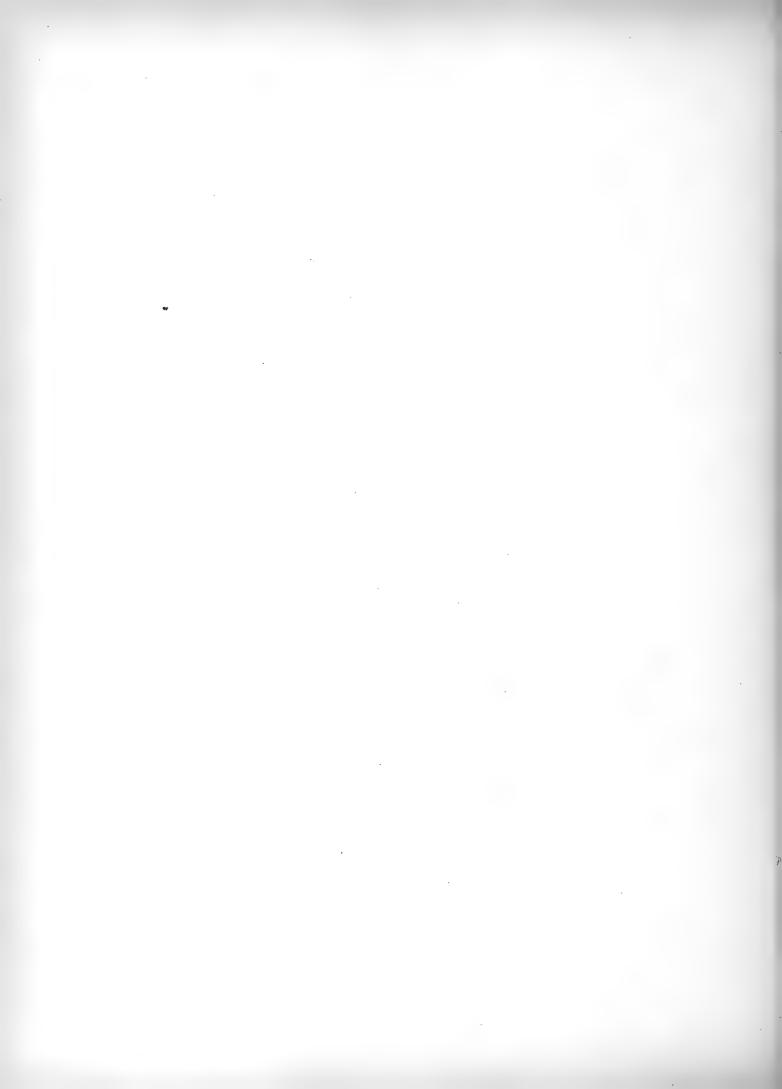


Order, Coleoptera.

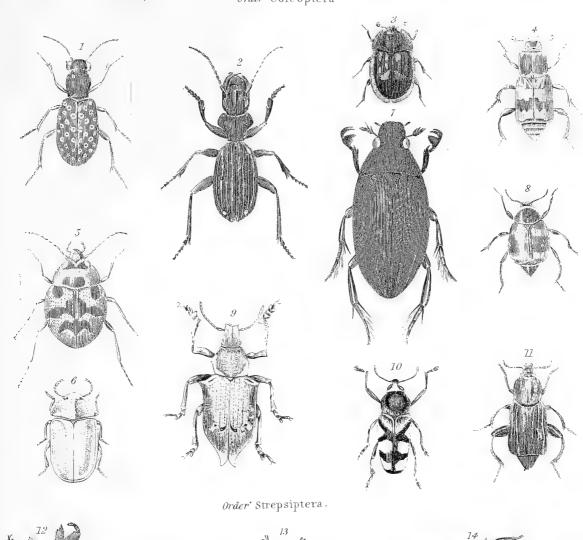


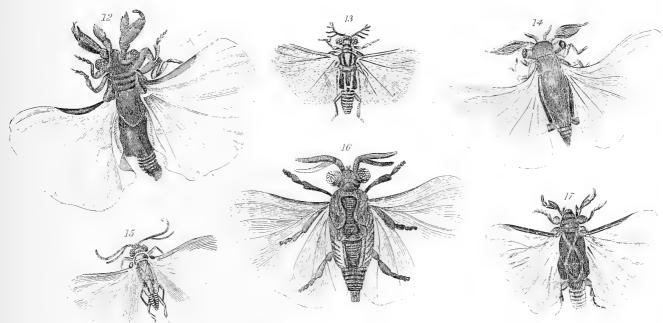
- 1 Rhagium mordax
- 2 Molorchus abbreviatus. __Fly-like-beetle.
- 3 Rosalia alpina Alpine Musk-beetle
- 4 Telocera Wollastoni _ Wollaston's Australian Longicorn
- 5 Pascoëa Idex_Pascoes armed-cheeked Longicorn.
- 6 Pyrrha Wollastoni... Lord Howes Island Longicorn.
- 7 Phæbe concinna. The elegant lavender coloured Longicorn.
- 8 Anisocerus dulcissimus._ Charming Yellow and Red Longicorn.
- 9 Tragocephala comitessa... The Conatess Beetle
- 10 Anthicus pedestris.
- 11 Helæus perforatus.... The hairy perforated Heleaus.

- 12 Prioptera Whitei _ N. Chinese Tortoise-Beetle.
- 13 Pupa of Prioptera Wavei.
- 14 Selenis spiritex. Perforated Tortoise-Beetle.
- 15 Cerocoma Schæfferi.
- 16 Gnathium Francilloria Francilloris Thread-jaw.
- 17 Brontes planatus.
- 18 Lomechusa dentata. _Ants-nest-beetle.
- 19 Apate capucina.
- 20 Notoxus monoceros.
- 21 Ptinus Fur
- 22 Dasytes niger



Order Coleoptera





- I Elaphrus uliginosus
- 2 Anthia 4 guttata
- 3 Nitidula grisea
- 4 Necrophorus vespilio Burying beetle
- 5 Omophron limbatum
 - 15 Elenchus Walkeri
- 6 Australica Curtisii
- 7 Hydrous piceus Large Water beetle
- 8 Scaphidium 4 maculatum
- 9 Cyphus Hancocki. Capt" Hancock's Green & Gold Weeril
- 10 Ameris Duiresnii Dufresne's Red spotted Weevil
 - 17 Stylops Dulii
- Necrodes littoralis
- Shore burying Beetle
- 12 Stylops Kirbii
- 13 Halictophagus Curtisii
- 14 Stylops Melita

16 Xenos Vesparum

Order Orthoptera



Forficula auricularia Earwig



Lapland Cockroach.



Tridactylus paradorus



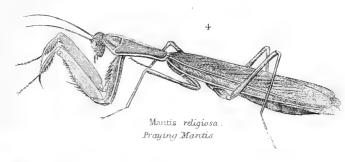
Acrydium. conlescens. Blue-winged Grasshopper.

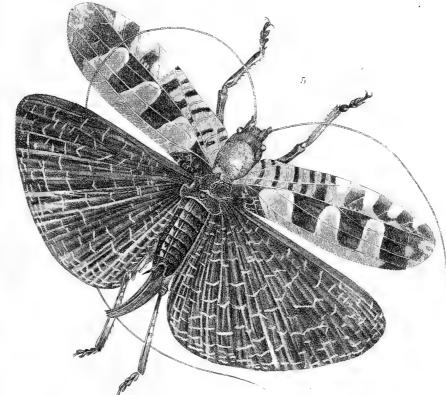


Gryllotalpa vulgaris



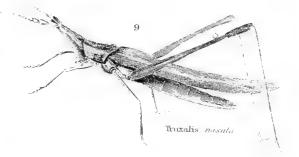
Idolothrips spectrum.





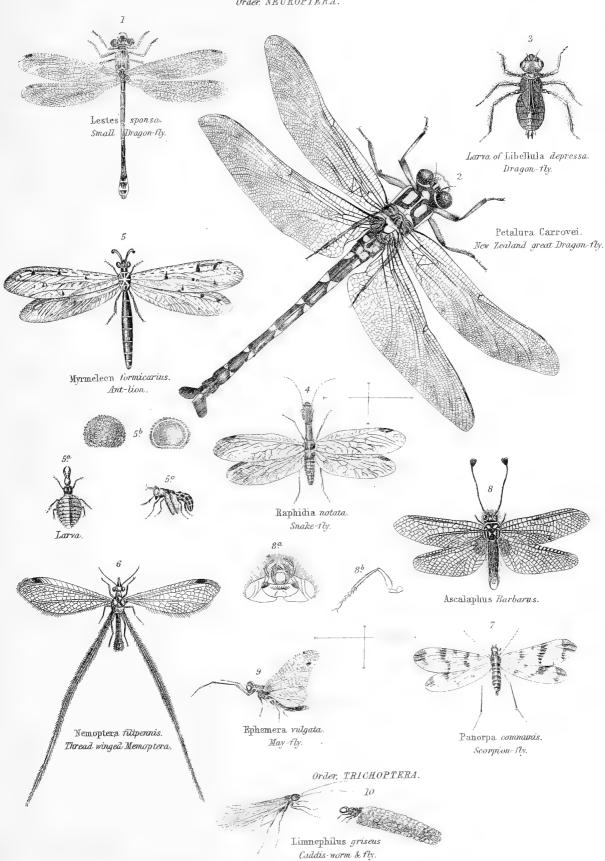
Acanthodis imperialis The Emperor black and green Cricket

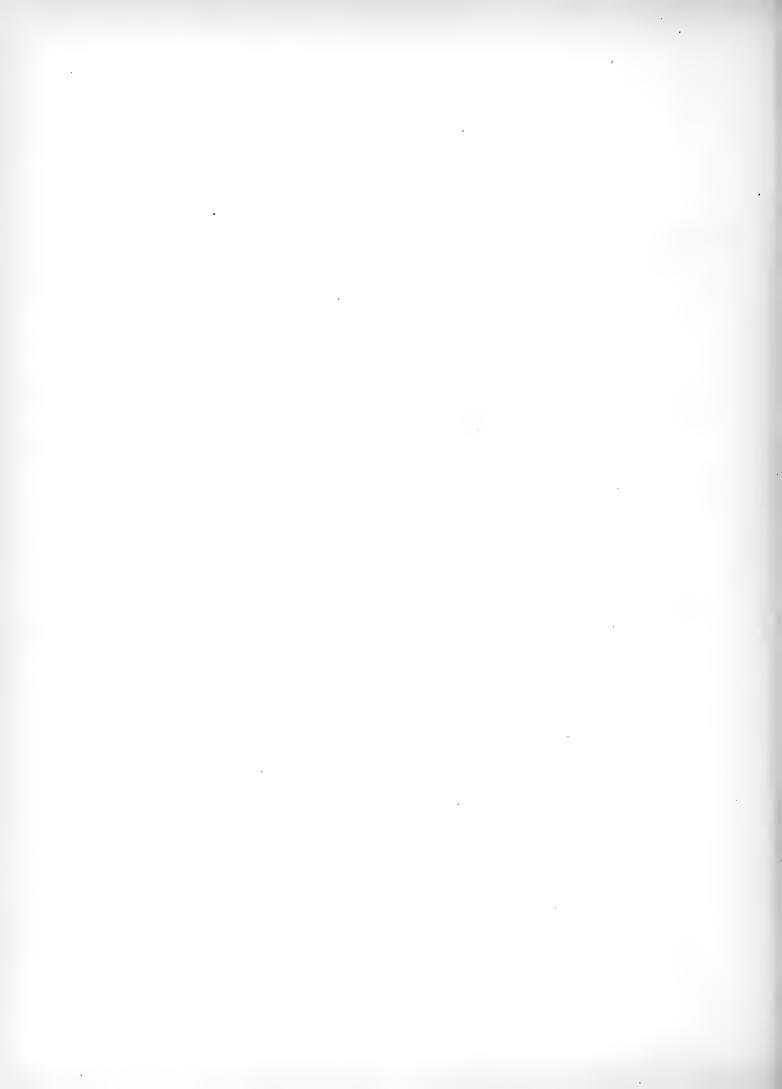






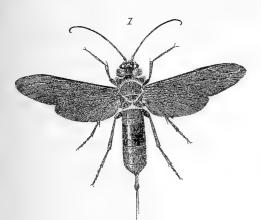
 $\textit{Order}. \ \textit{NEUROPTERA}.$





ENTOMOLOGY.

Order Hymenoptera.



Surex gigas _Tailed Wood-Wasp.



Pterygophorus cinctus Female Austrailian Saw-fly



Evania appendigaster Cockroach



Banchus pictus
Painted Ichneumon



Mutilla coccinea.





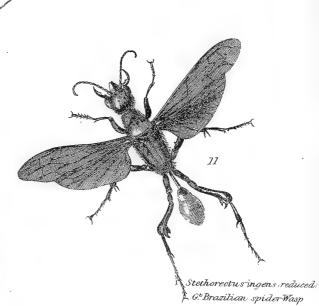
Ephialles manifestator Great Ichneumon.



Pelopæus spirifex



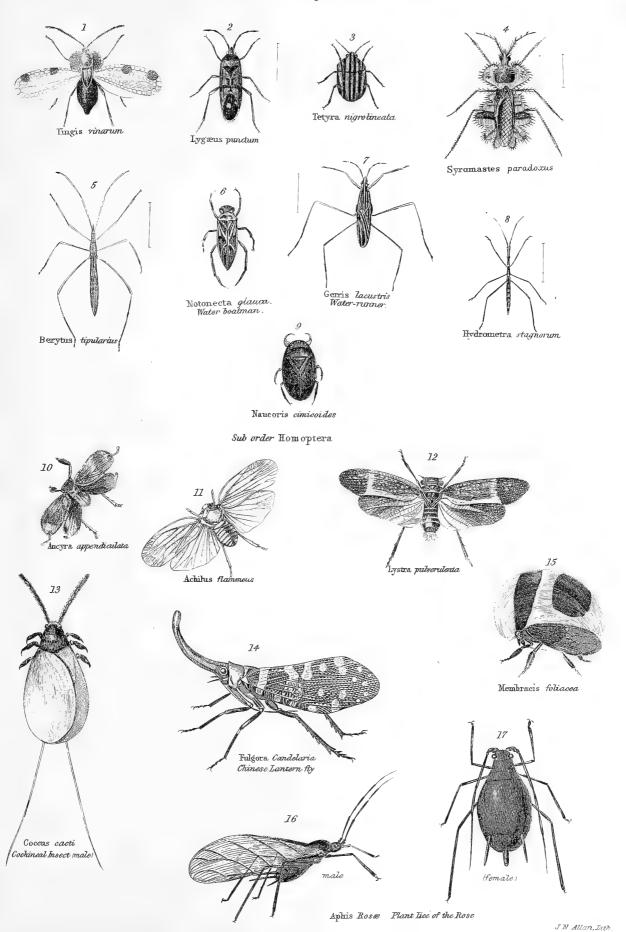
Scolia 4-maculata

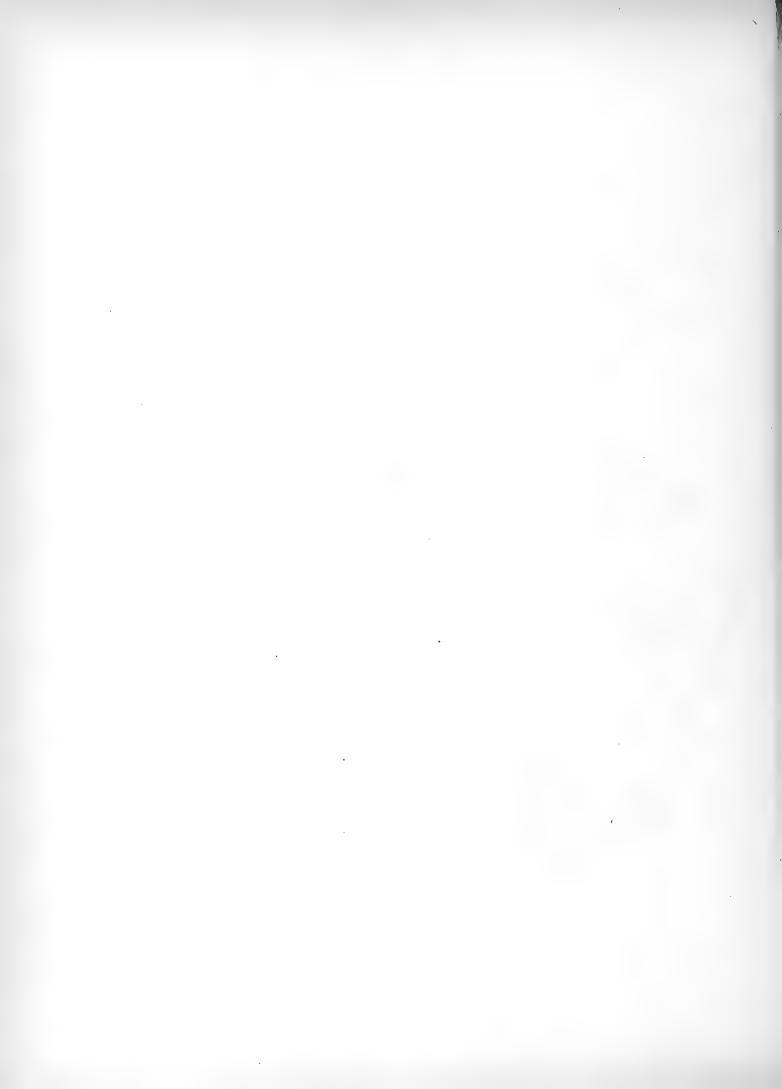


Head of Philanthus triangularis

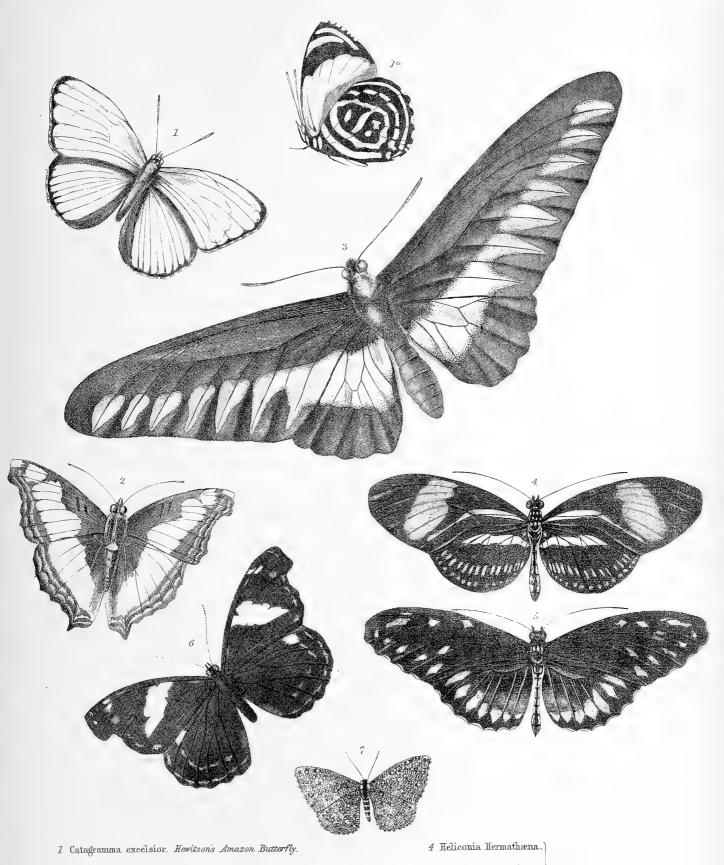
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Sub order Hemiptera





Order, Lepidoptera.



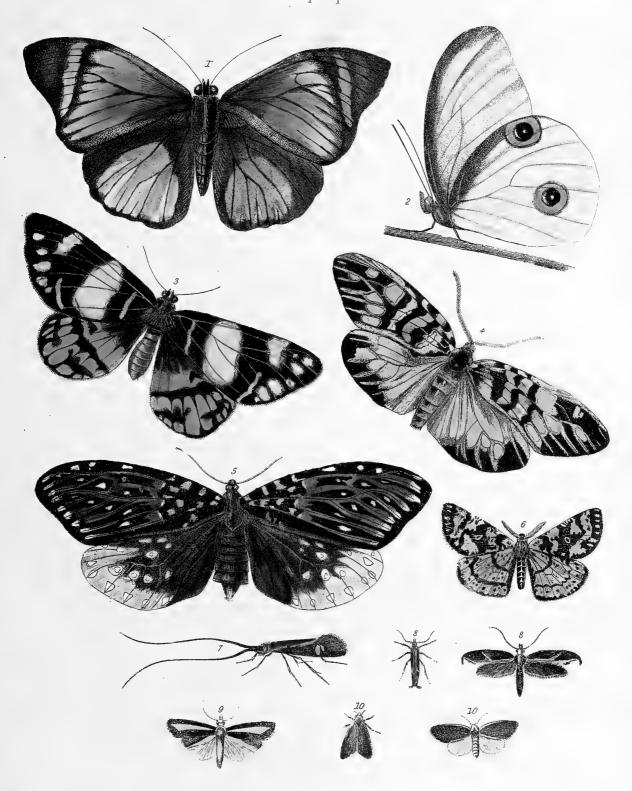
South American Buttertlies.

- 1. under side.
- 2 Ornithoptera Brookeana. Brooke's Borneo Butterfly. (male)
- 3 Apatura Laura. Drury's Emperor Butterfly.

- 5 Heliconia Hecatesia.
- 6 Epicalia Penthia.
- 7 Calydna Calamysa..



Order Lepidoptera



7 Agrias Claudia

The Annetta Amazon Butterfly. (male)

2 Drusilla Mylæcha

3 Præsos Mariana

Marian White's Moth.

4 Erasmia pulchella

Charles Horne's Moth. 5 Cyclosia sanguiflua The Painter's Pallet.

Macgillivray's Louisiade.

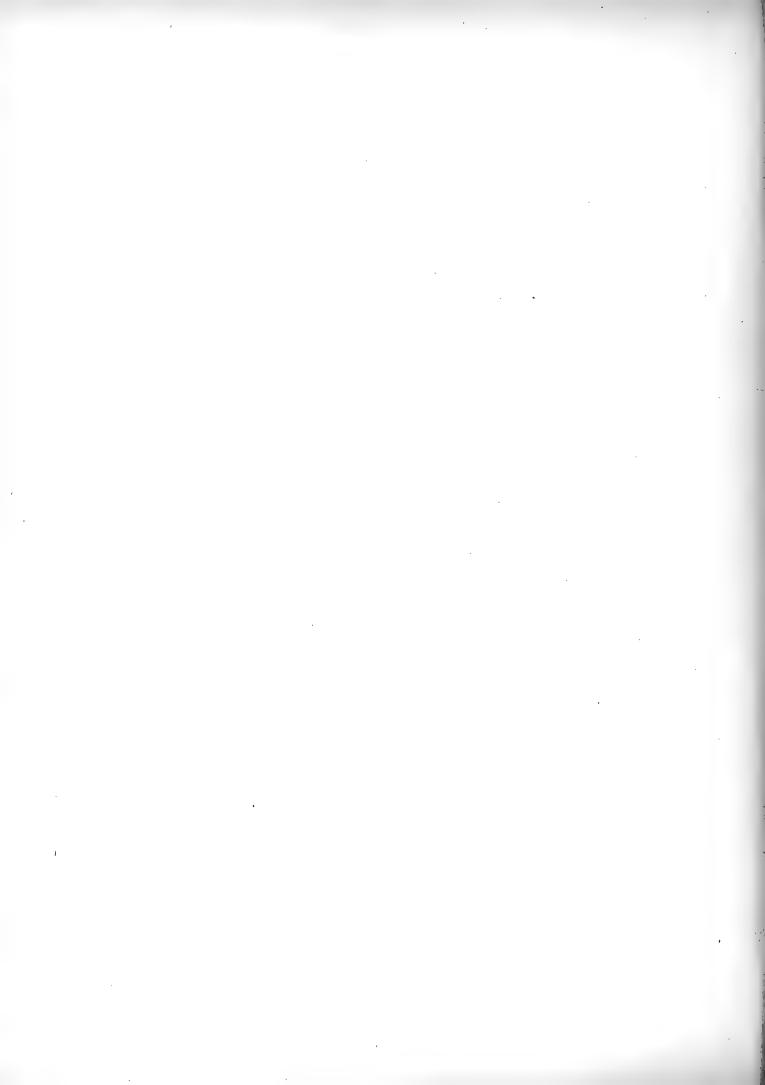
7 Adela Sultzella.

8 Cerostoma xylostella

9 Grambus margaritellus

6 Fidonia atomaria.

10 Earis Chlorana



Order Diptera



Henops marginalus



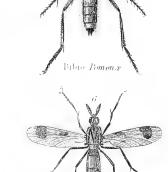


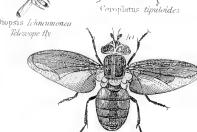




Tabanus niger

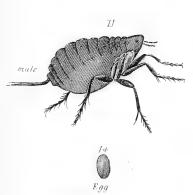




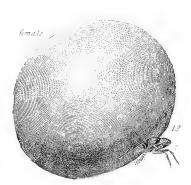


Phasia hemiptera

Order Aphaniptera





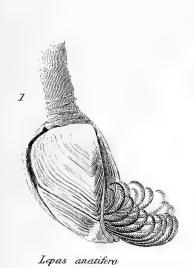


Sarcopsylla Penetrans or Chigoe highly magnified



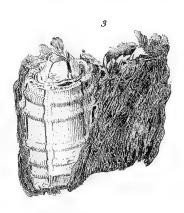


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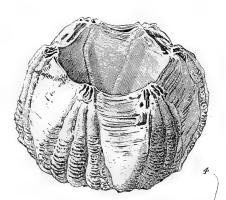
Scalpellum vulgare



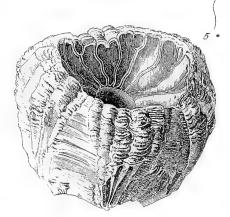
Tubi oinella trachealis.



Conchoderma virgata



Coronula diadema

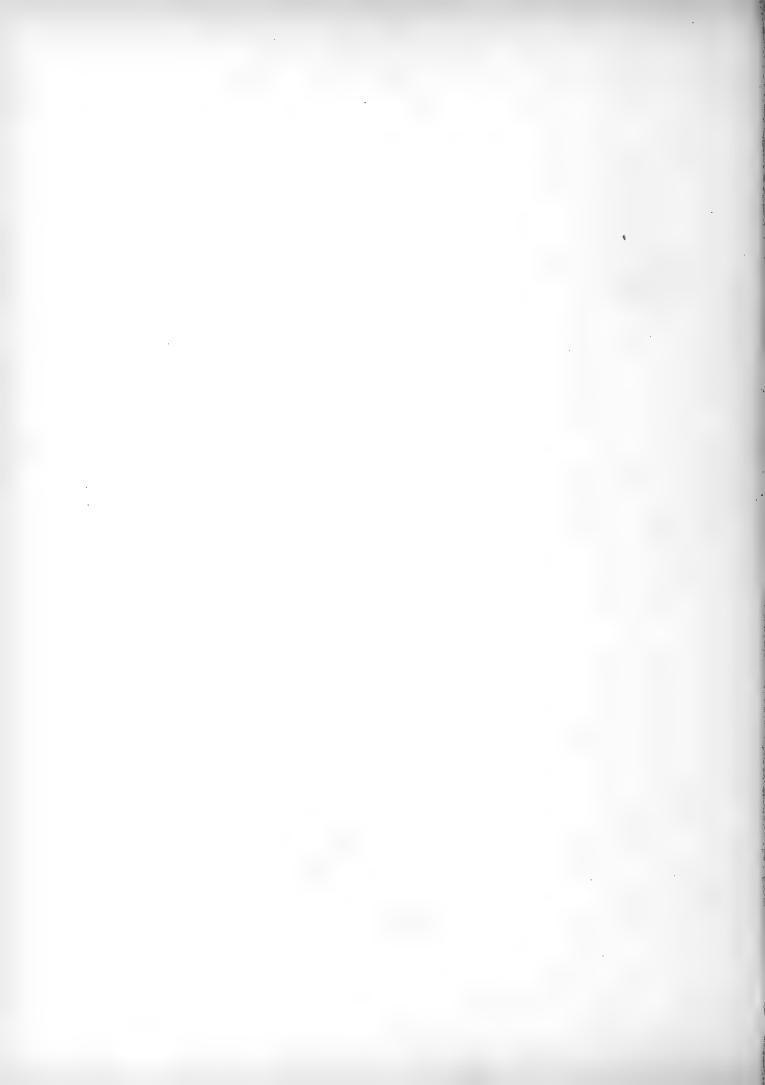




Conchoderma Auritu

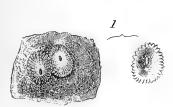


Pollicipes Cornucopia

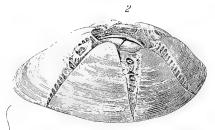


CIRRIPEDIA.

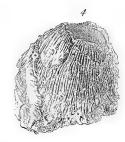
PLATE 2



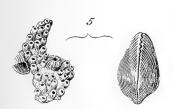
Pyrgoma cancellatum



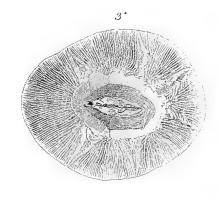
2 3 Chelonobia testudinaria



Conia porosa.

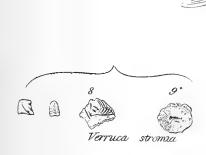


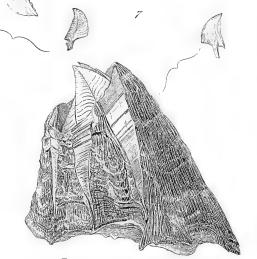
Creusia spinulosa



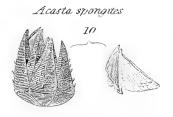


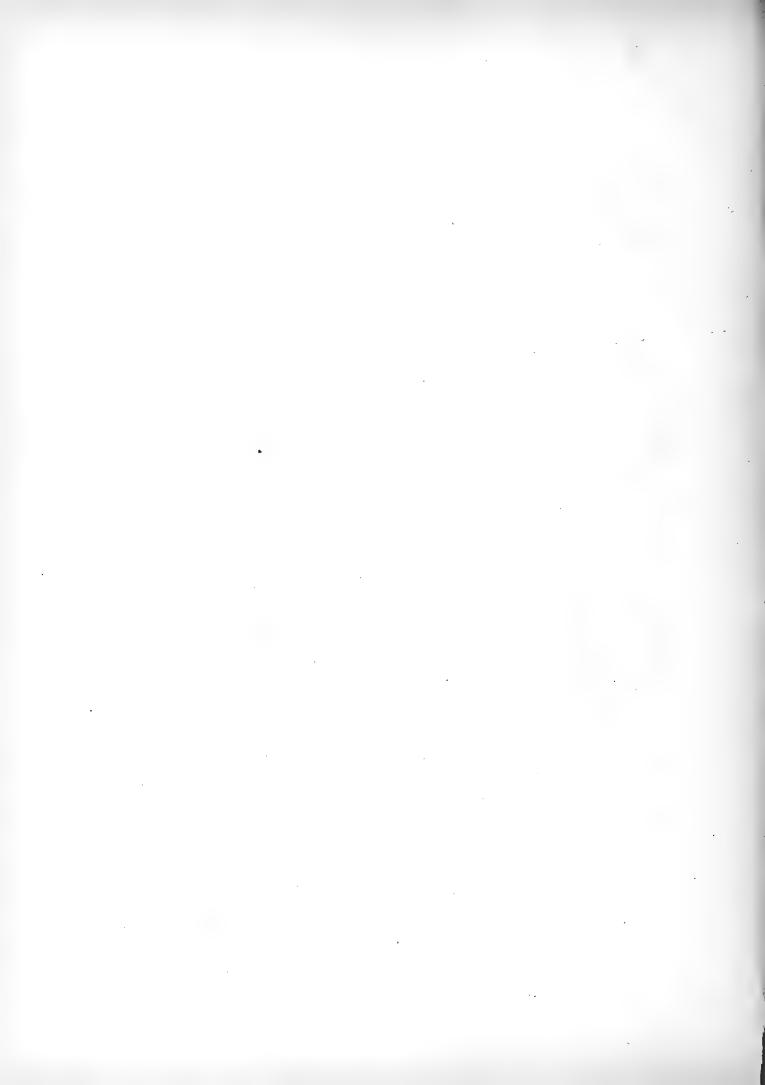
Balanus tintinnabulum/Var/





Balanus tintinnalulum





Class Gasteropoda Sub class (tenobranchiata)

Order Pectinibranchiata





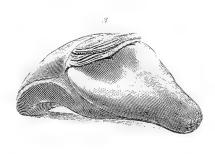




Coriocella *nigra*









I 3 Stomatia haliotoideum .

Tetica millepunctals
and its operculum

Family Cerithiidse

Family Ampullariid x



Pachystoma Solidum & its Operculum.

Family Melaniidae



Bibex Melania Bynmen.





Cerithitim leveve

Family Littorinidæ

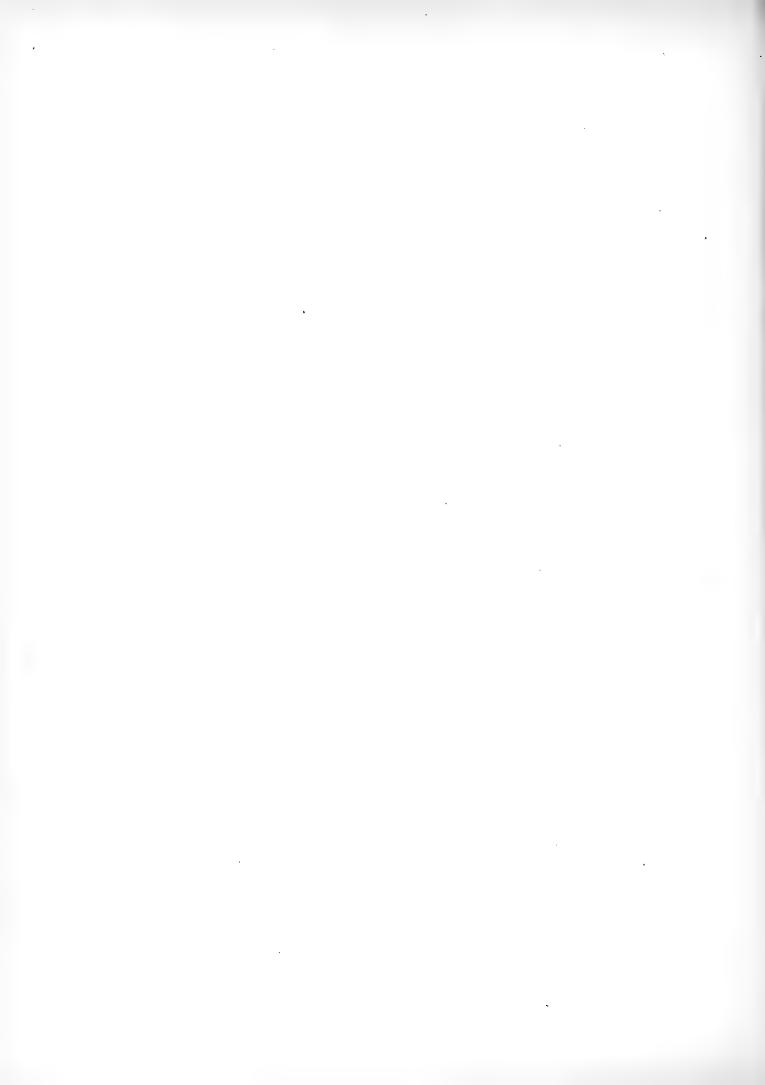


Littorina *Litori*na

Oper of N.I.



Oper. of Fuscum Certhium Telescopmin

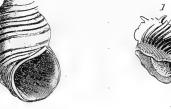


Class Gasteropoda Sub class Ctenobranchiata

Order Pectinibranchiata







Viviparus Paludina Bengalenis



Viviparus Paludina costata



Viviparus Operculum of Paludina Vulgaris





Crepidula dilatata



Family Calyptræidæ



3 4 Crepidula Unguiformis



Crucibulum auriculata



7 8 Calyptra esquestris









1 4 Capulus ungaricus







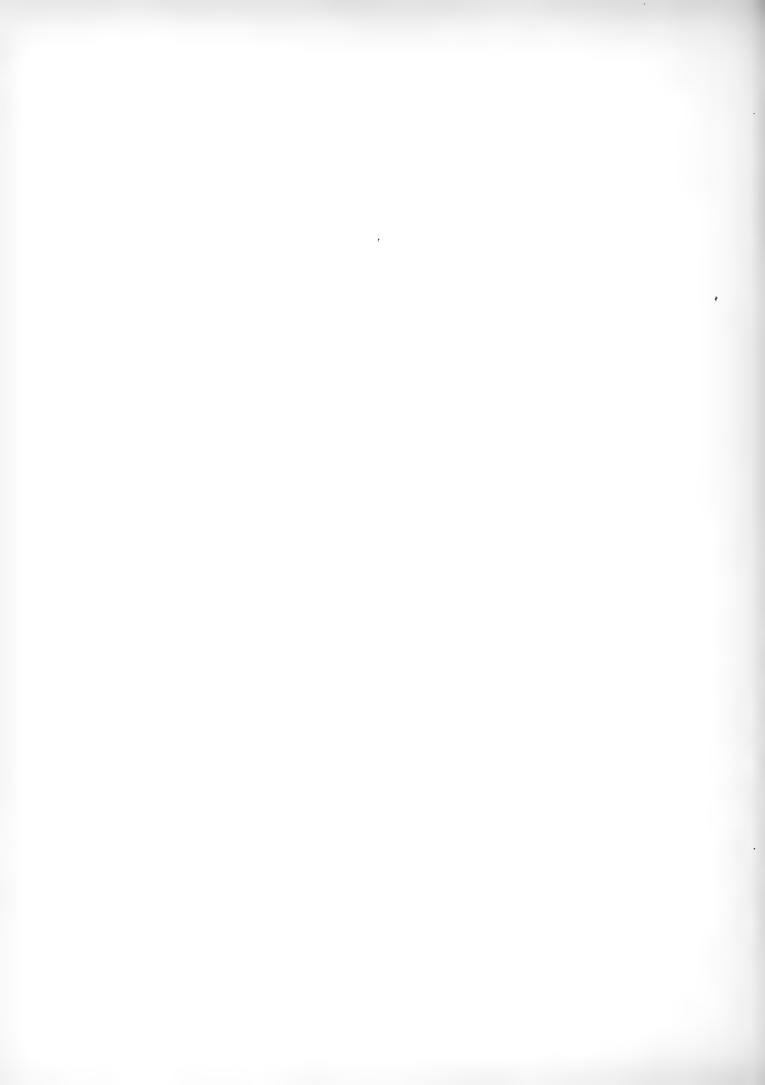




5 6 Hipponyx mitrula

7 8 Amalthea australis

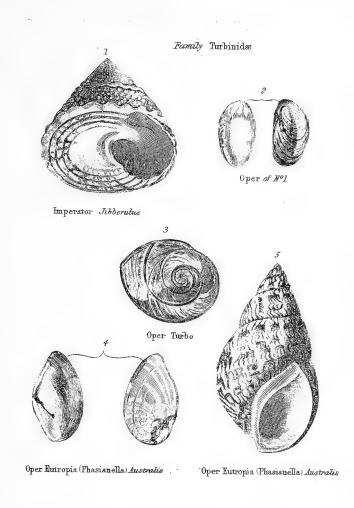
9-11 Hippony oornuoopiæ

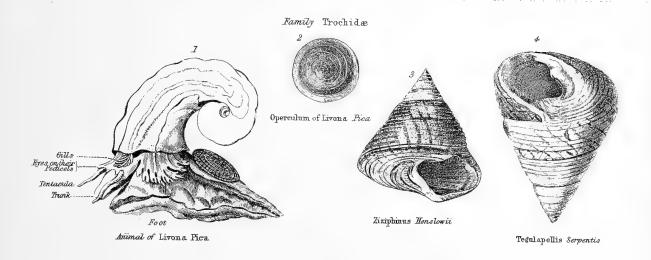


Order Scutibranchiata

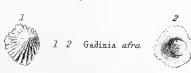
Neritina Oweniana

Neritina cariosa





Family Gadiniidæ



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Family Amphastridæ







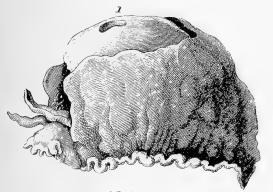
13 Bullinula Undata

Family Bullidæ



Akera carnosa

Family Aplystidee



Aplysia punctata





Notarchus Curieri



Family Philinidæ





12 Scaphander lignarius





Family Pleurobranchidæ

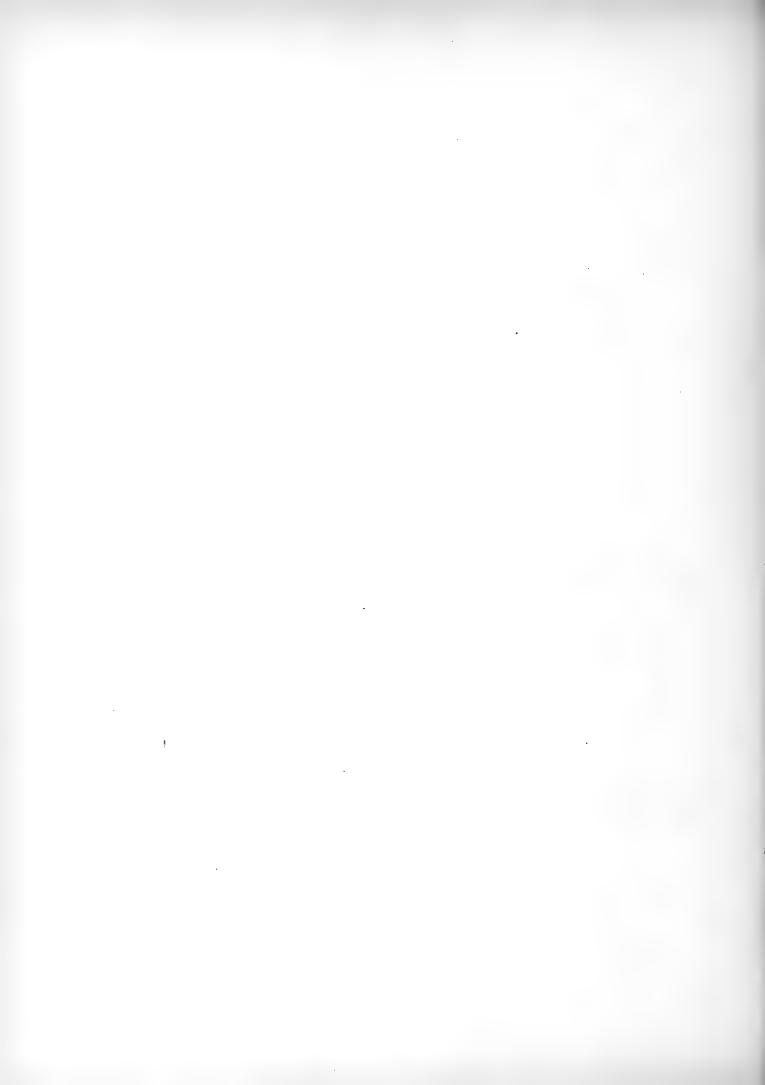


Pleurobranchus Peronii



2/3 0 scanius (Pleurobranchus) membranaceus

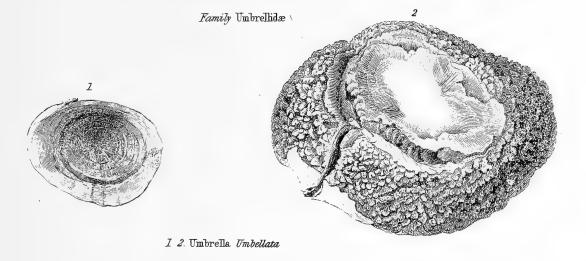


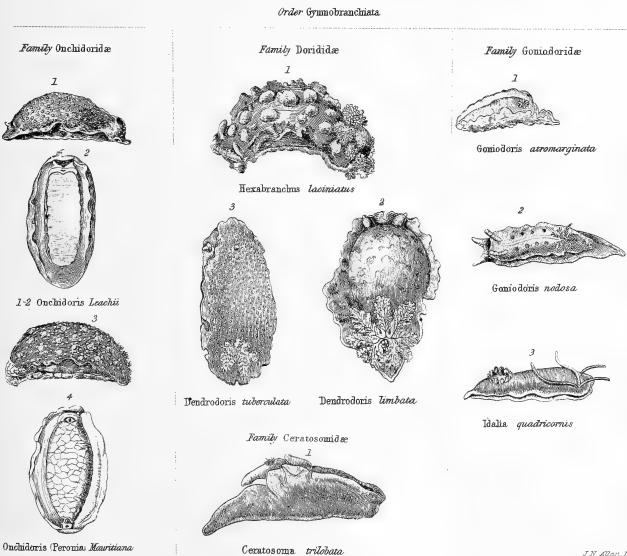


MOLLUSCA.

Class Gasteropoda Sub class Heterobranchiata

Order Pleurobranchiata





3 4. Onchidoris (Peronia) Mauritiana

JN Allan, Tith



Order, Gymnobranchiata.

Family Tritoniidæ.



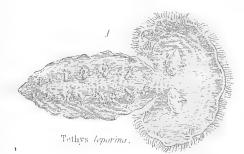
Tritonia Hombergii.

Family. Scyllaridae.



Scyllæa pelagica.

Family. Tethyidae.



Family, Polyceratidæ.

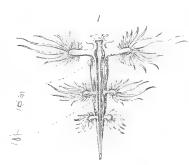


Thecacera quadricornis.



Polycera cormita,

Family, Glucidae.



Glaucus Atlanticus.

Laniogerus Ellorini



Flabellina cureri.





urder Pulmonata.



Testacella Anuga.

Family Welleida.





Jelie anterior



Arion Ater.



Zonites Algira.

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Class Gasteropoda Sub class Heterobranelriata

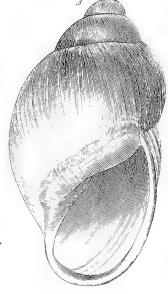




Acavus Hæmastoma



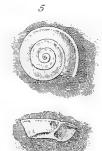
Nux denticulata



Bulimus Ovatus



Iberus Carocolla



Sheba *albella*



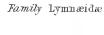
Sagda Epistylium



Clausilia *Cærulea*



Liguus (Achatina) Virginea





Physa rivalis

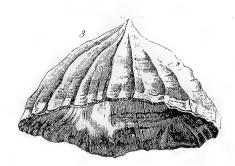




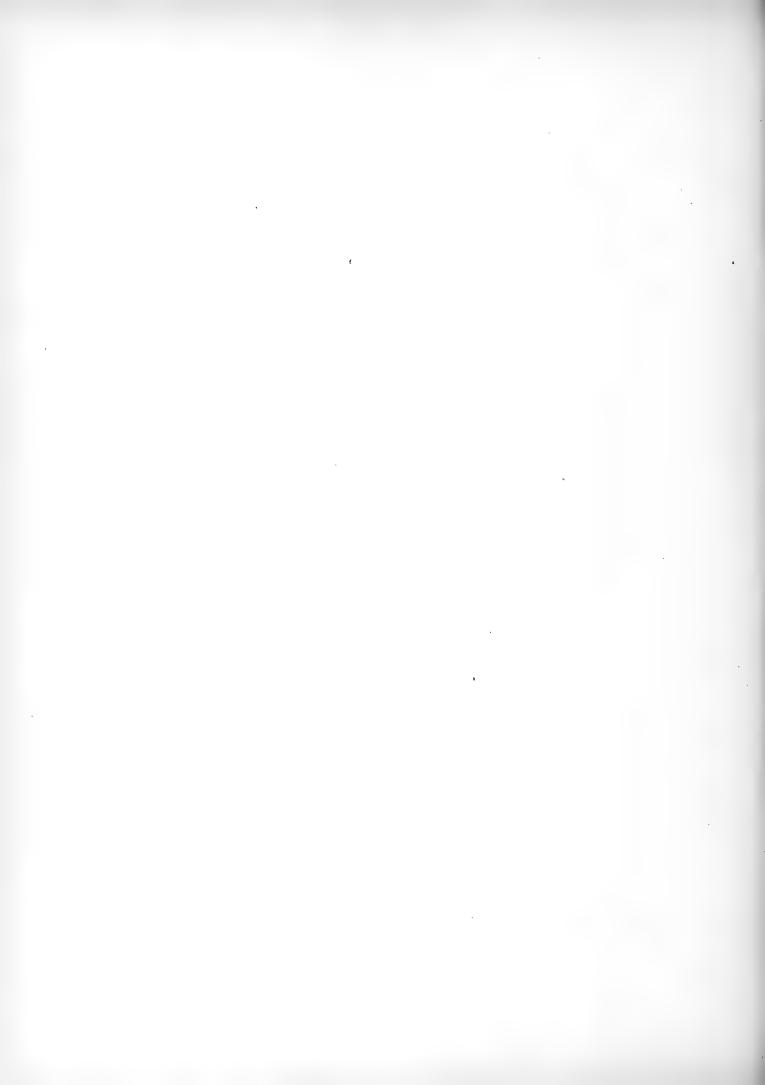
Family Siphon ariadæ



1.2. Siphonaria *radiota*

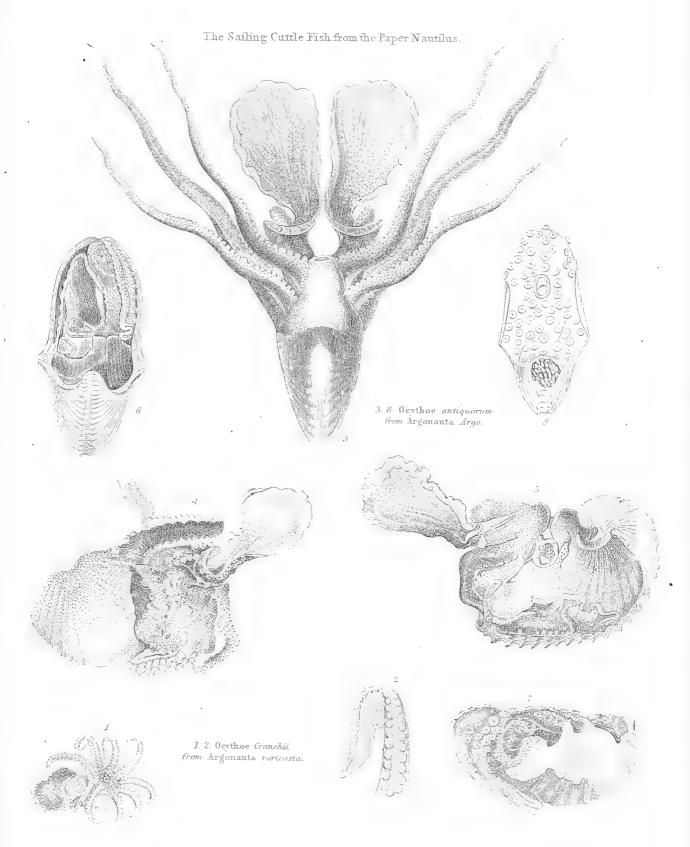


Siphonaria grandis

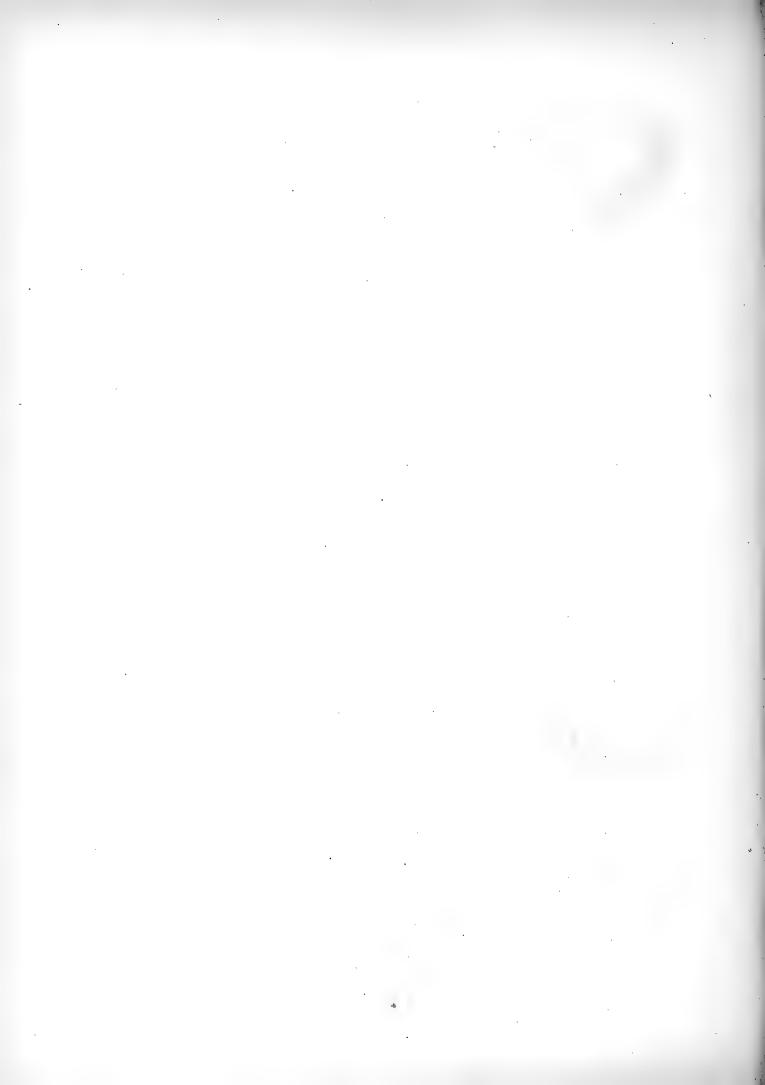


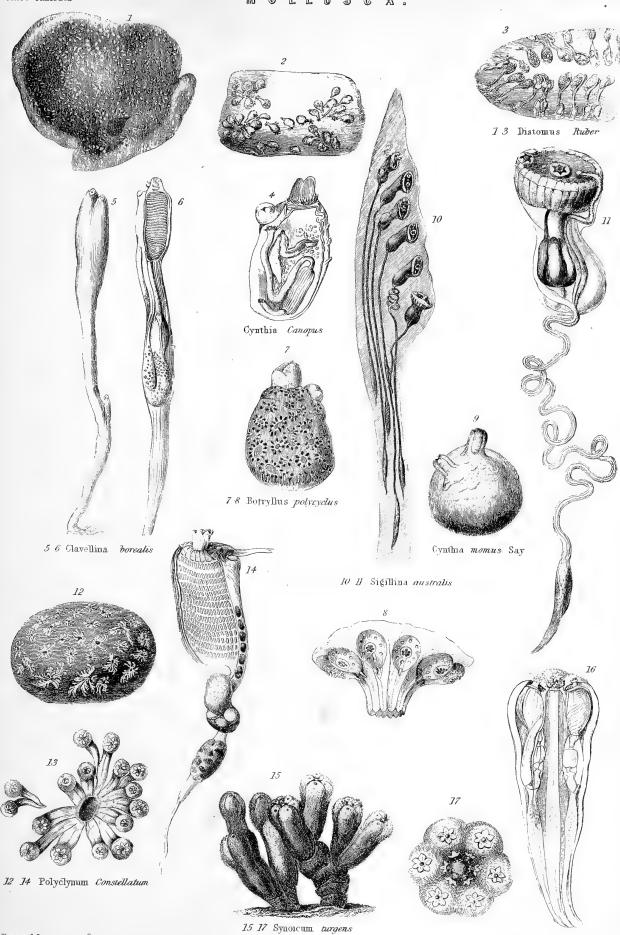
Class. Cephalopoda.

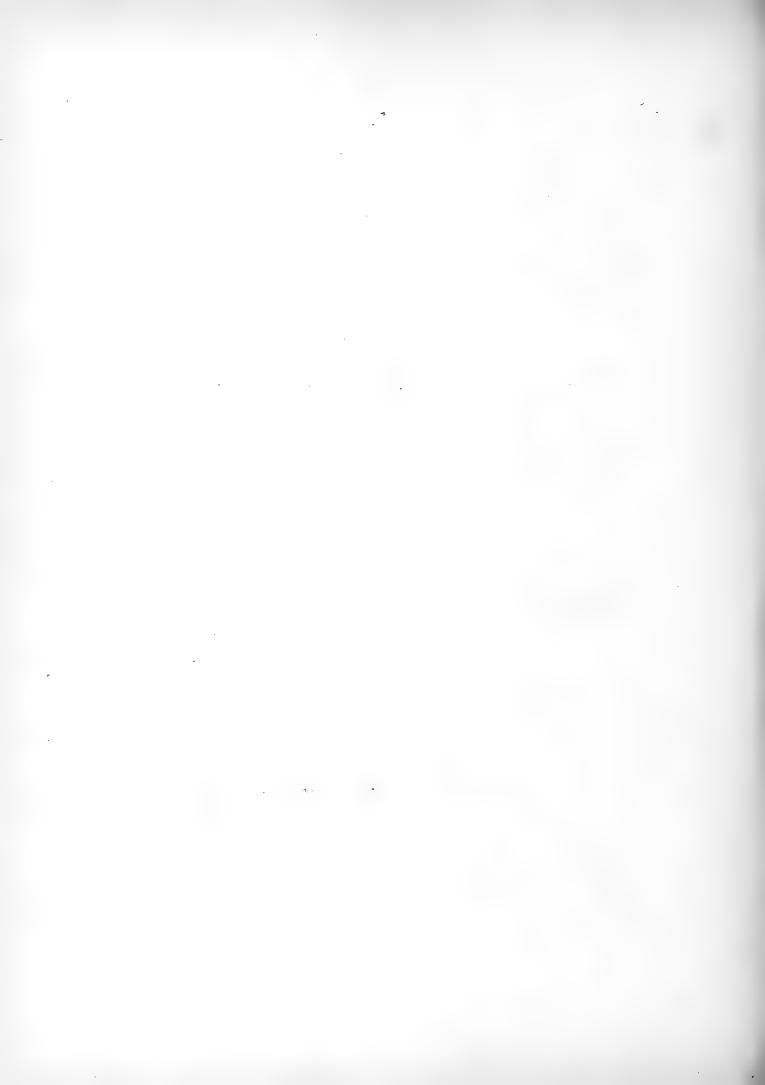
Order: Octopoda.



1. The animal out of the shell, 2. the front arm showing the dilatation. 3. the animal expanded showing the 8 arms the anterior pair being dilated at the end & the sides of the body marked by the ribs of the whell, 4.5, the animal partly constructed, 6, the animal quite contracted in the shell. 7.8, the side & top view of the animal partly contracted in its shell; the shell broken at the keel to show the Lygs.

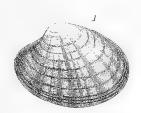






Class. Conchifera.
Sub class. Siphonophora.

Orders. Veneracea.
Pholadacea.



Veneridæ. _ Dione chione.



Tellinidæ ___ Tellina radiata.



Mactridæ.___ Mactra stultorum.



Chamidæ.__Chama lazarus



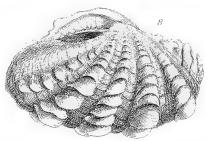
Mutelidæ.____ Pleiodon ovatum.



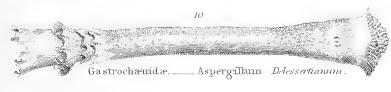
Ledidæ. _Yoldia lanceolata.

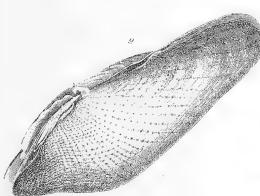


Cardiidæ.__Cardium hians.



Tridacnidæ.__ Tridacna crocea.





Pholadidæ.___Pholas dactybus.



Myada, __ Mya arenaria.



Solenidæ. _ Solen ensis.



MOLLUSCA.

PLA7E 11

Class. Conchifera. Sub-class. Asiphonophora. Orders Lasiacea. Brachiopda. Unionacea Pteropoda. Pectinacea. Solenomya Mediterranea. Lucinidæ._ Corbis jimbriata. Ætheriidæ.__ Ætheria Cailleadii. Trigoniidæ. Trigonia *pedinata* Mytilidæ.__ Mytilus edulis. _ Anodonta - cygnea . Unionidæ. Arcade.___ Arca Now Pectenida. ___ Pecten Jacobaus. Aviculidæ._ Margarita margaritifera Limadæ. Lima aperta. Ostreidæ.___ Ostrea edulis. Terebratulidæ. Terebratula Pinnadæ.___ Pinna squamosa Spondylidæ.___ Spondylus regius. Lingulidae. Lingula anatina Hyalæidæ.

Cavolina tridentata



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......p. dorsal or upper Polycipes. CIRRIPEDES. (CRUSTACEA): sung SERIAL MOLLUSCA. & donnenlate tines of growth SYMMETRICAL UNIVALVES. longitudinal ridges Dentahum nondhs Nautilus Patella. Whorls separate concentric lines of growth hinder edge o. (dissepiments c Spirula.

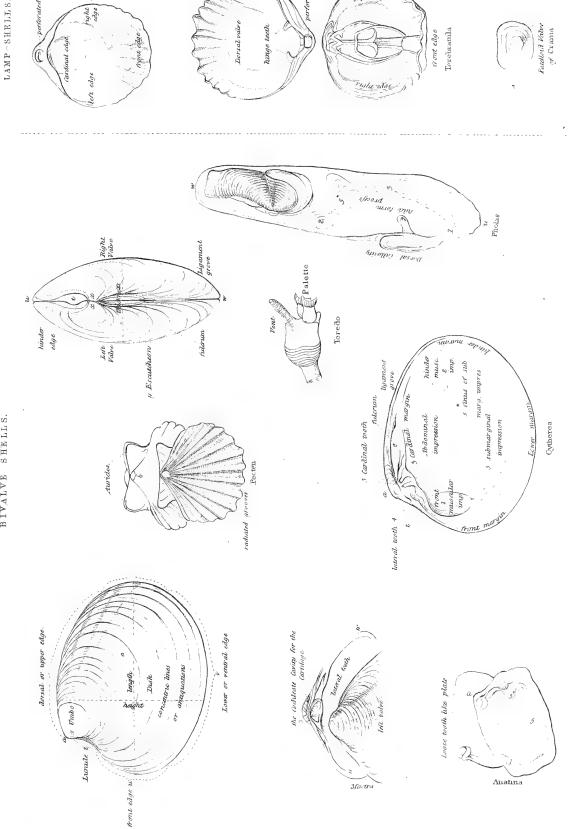
R.B. a. Summit or nucleus. A Margin of mouth or Perstome. c. The inner or columella lip. d. Outer lip. e. Front edge. f. Einder edge of mouth. g. The hollow axis or umbilisus. In Spire, in First whord. To Body whord, In Supere, m. Mussular impressions, n. Longitudinal slits, o Columella. p. Dissepiment between the whorls. The Parts of the various shells having the same number or letter are similar



right Dorsal value

verforated warbo





Ventral appendages supporting the body

16th Jul

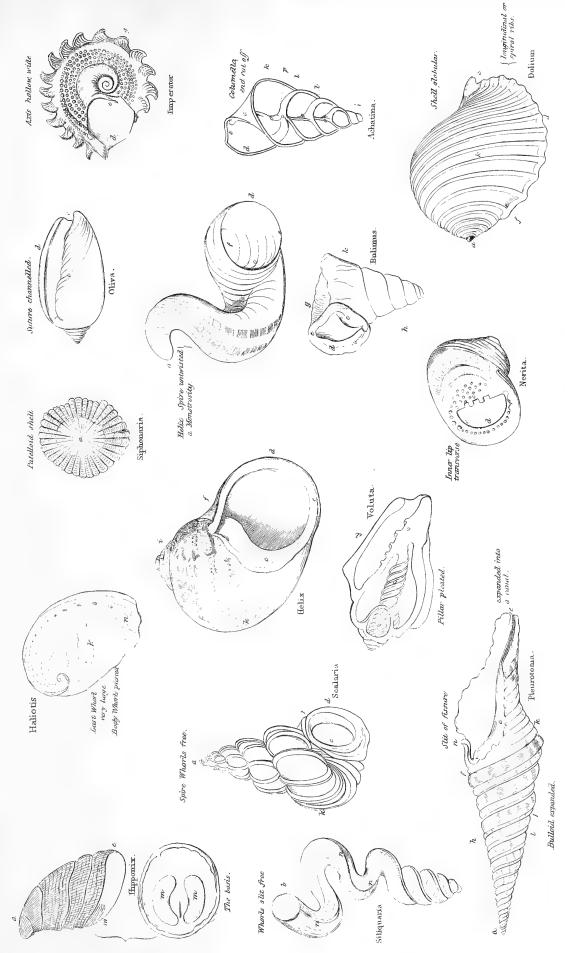
entrol valve

forated 1mbo

IVB. a Summit or modens. b Maziro of month or Pontome. c. The rimer or cohomella tip. d. Outer Vip. e. Front edge, f. Airder edge of mouth. o. The hollow wite or umbitiens. It Spire, i First whool. R. Ledge where. N. Mosselve ingression. It houpteddond stir o clotemedla p Disseprincia detreem the whorks. The Parts of the various shells having the same number or letter are similar



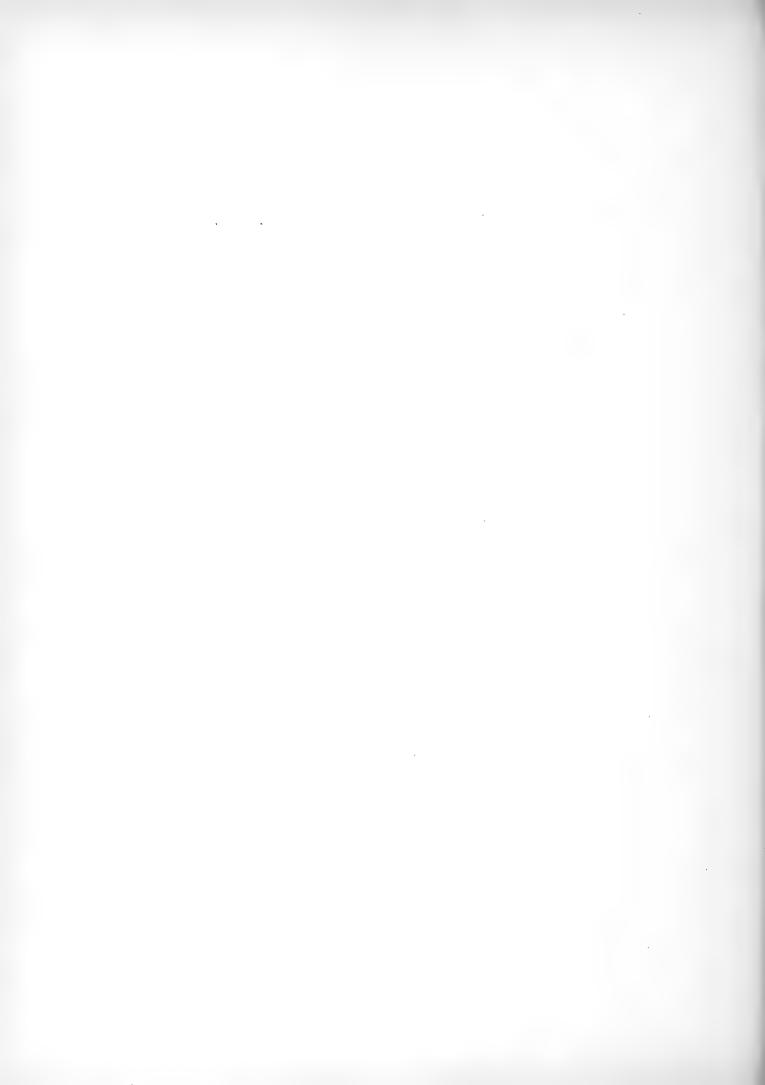
SPIRAL OR SUBSPIRAL SHELLS.



N.B. a. Summit or nucleus. b. Margin of mouth or Peristome. c. The inner or columella lip. d. Outer lip. e. Front edge of Hader edge of mouth. g The hollow axis or umbiticus. In Spire i First whart. Is Body whort. I Supere m. Muscular impression. In Longitudinal slix. o Wilmmella. p. Dissegiment between the whorts. The Parts of the various shells having the same number or letter are similar

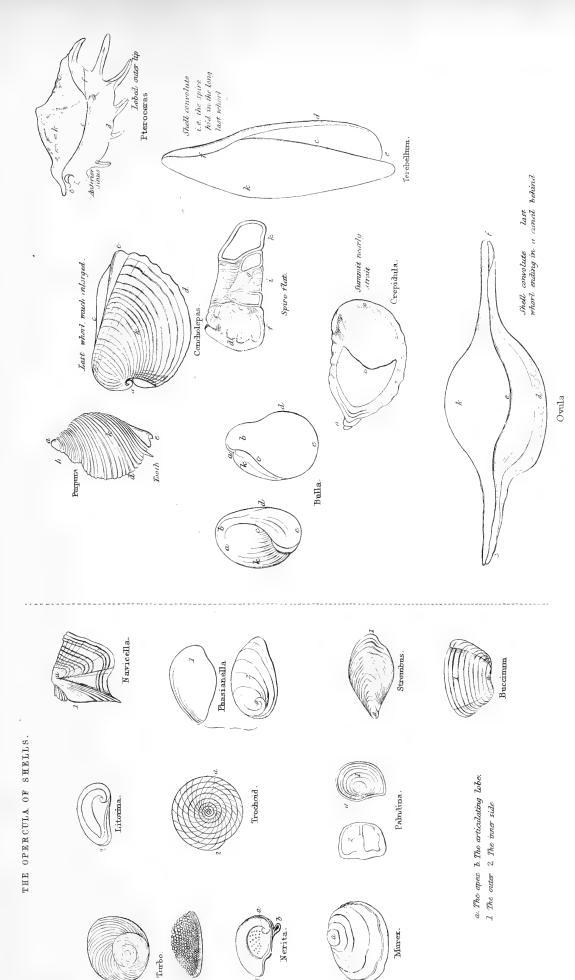
Withers del

IN Allan, Lith

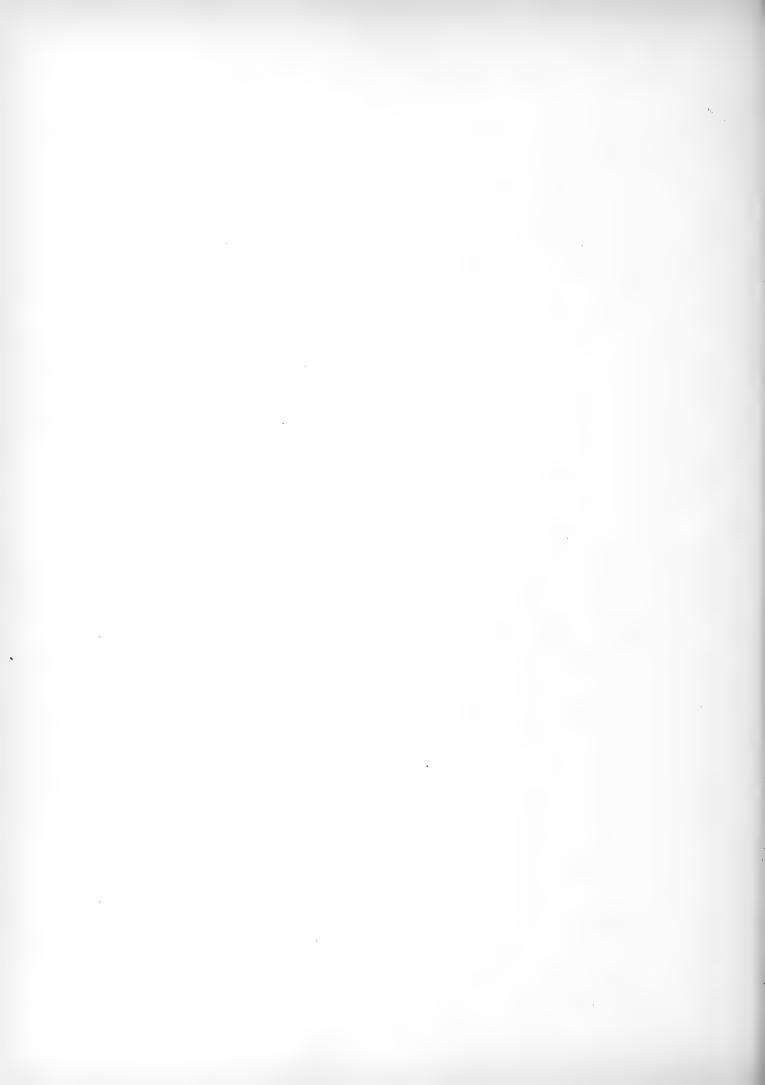


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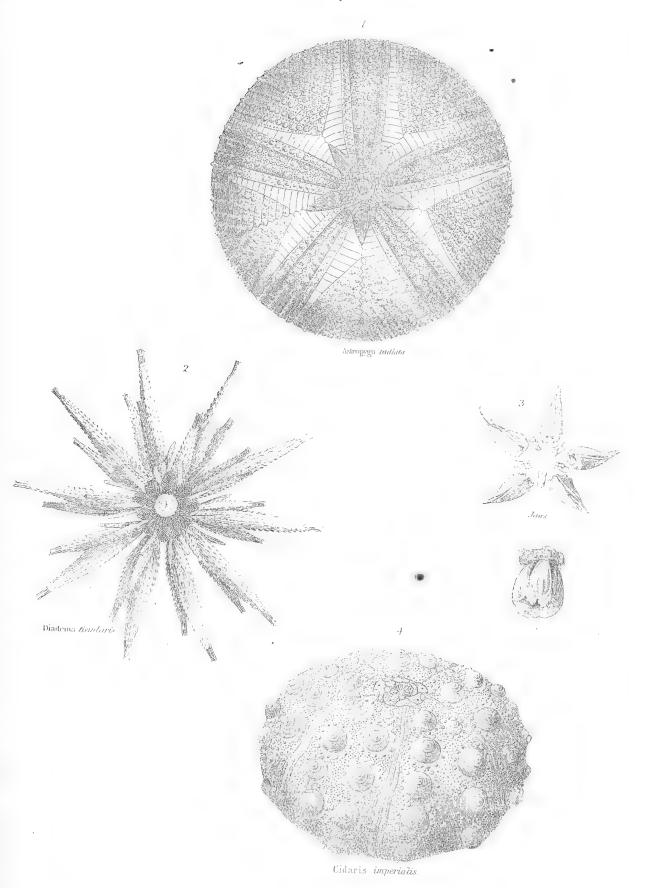
SPIRAL OR SUBSPIRAL SHELLS.

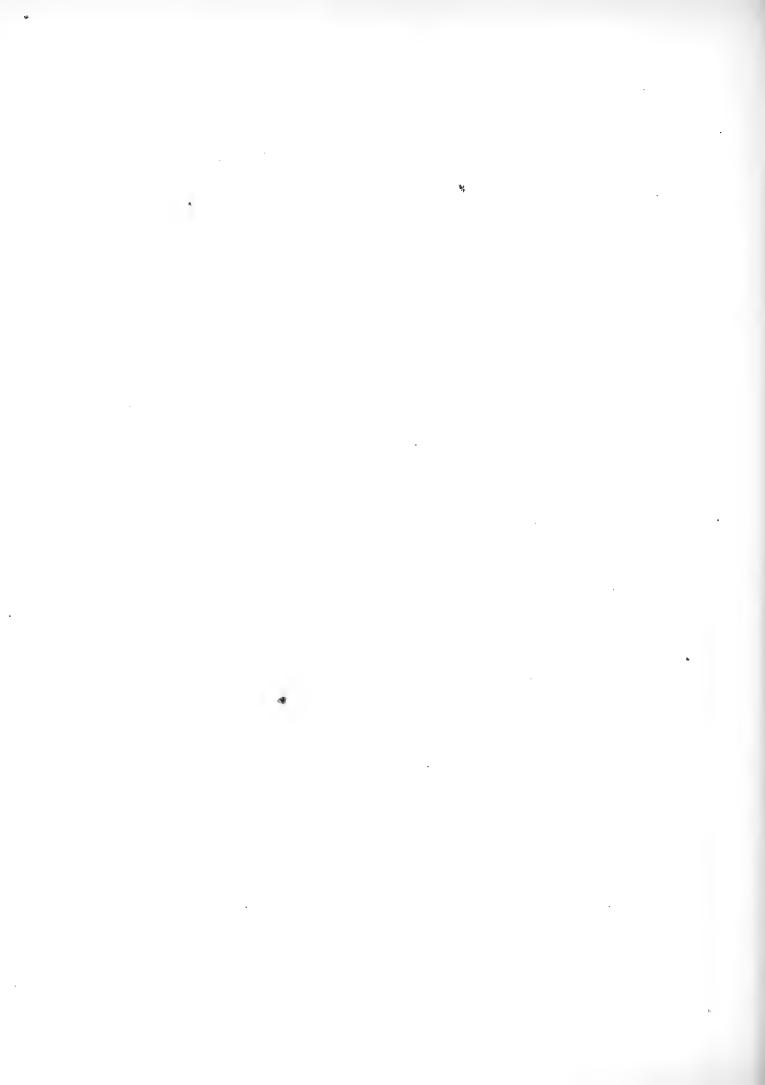


N.B. a. Summit or mideus. V. Margin of mouth of Parstone. c. The viner or columella lip. d. Outer lip. e. Front edge. f. Hinder edge of mouth. e. The hollow axis or umbilicus. V. Spire. 's First whom V. R. Sody whom!. V. Suture. m. Muscular impression: n. Longitudinns stir. o. lohumella. p. Dissepinient between the whorts. The Parts of the various shells having the same number or letter are similar.

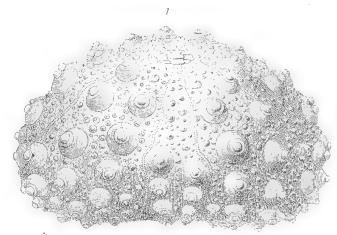


Family I. Cidaridæ.

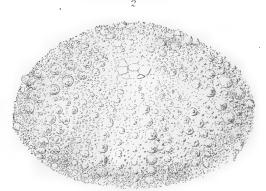




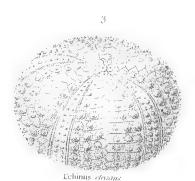
Family, II. Echinidæ.



Echinometra Manunithatus



Echinus mitiaris



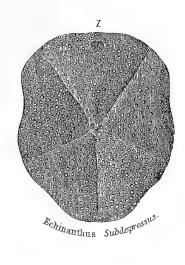
Echinus Sardicus

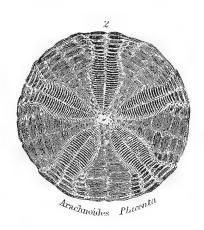
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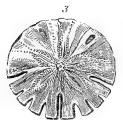
Order. Echinoidea.

Families Scutellidæ.

Echinolampasidæ.

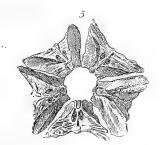




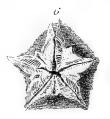


Rotula Angusti.





Jovs of Echinanthus Rosaceus.



Jams of Mellita hexapora.

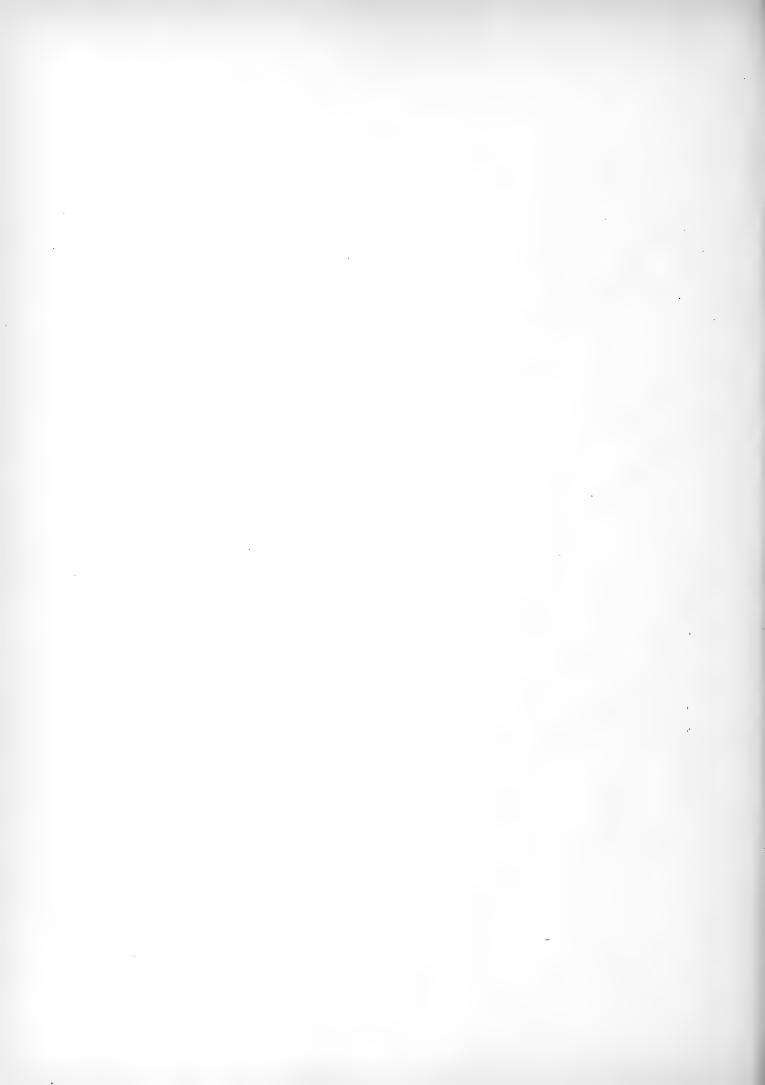


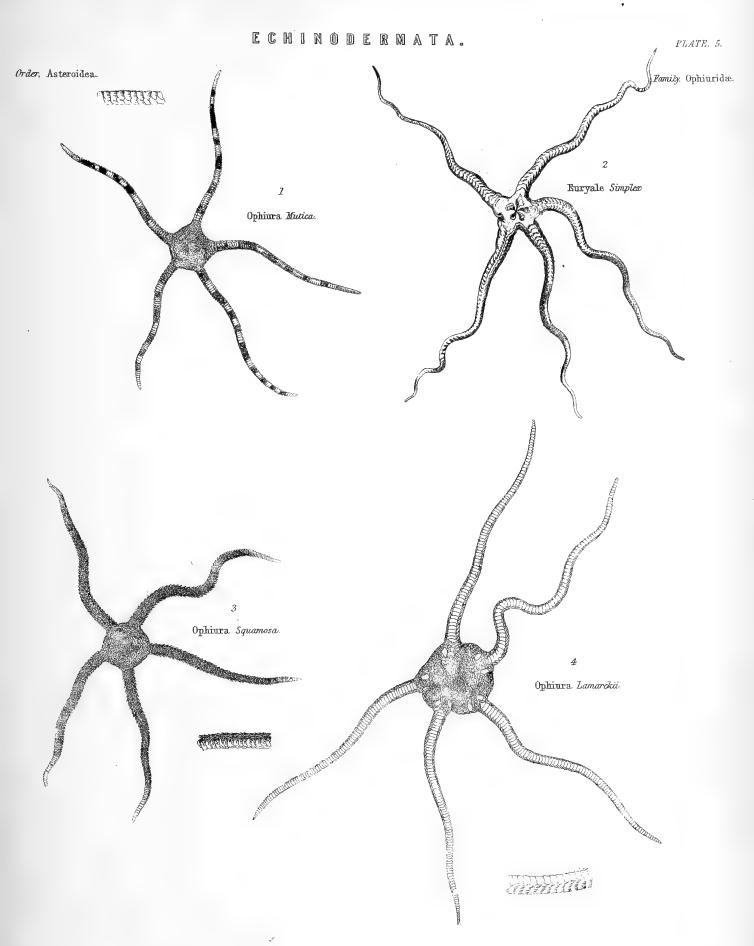
Cassidulus Caribæarum.

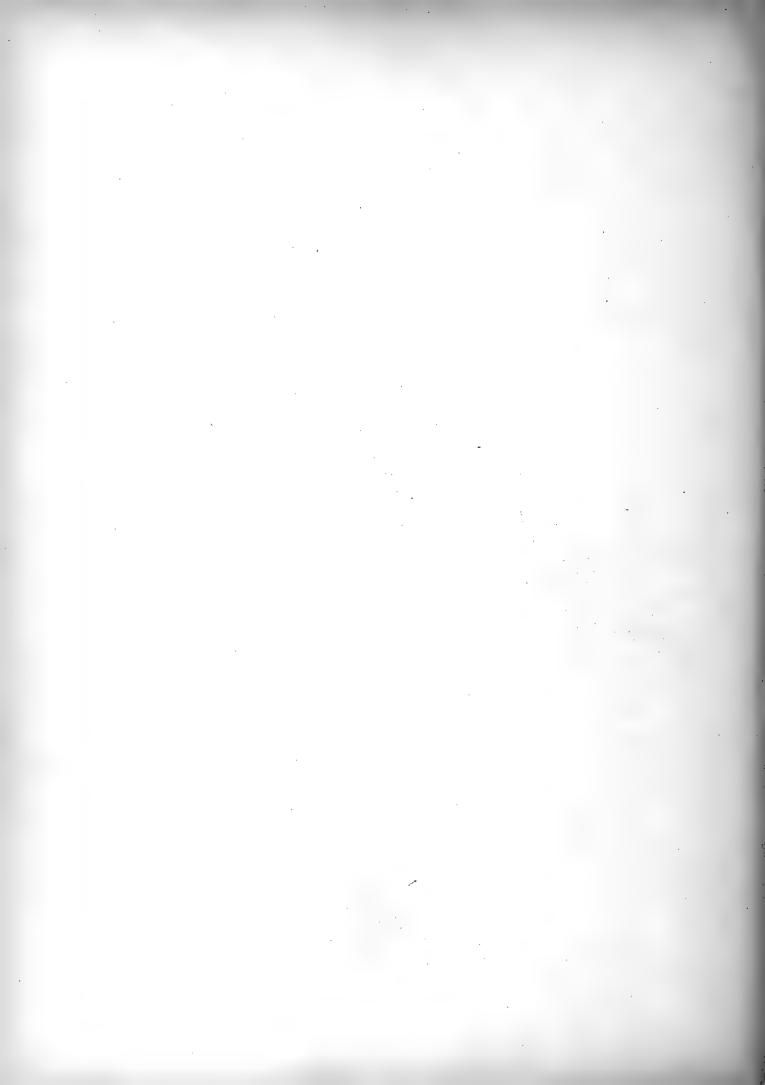


Galeritidæ.

Families (Echinolampasidæ. Order, Echinoidea. Spatangidæ. Galerites Albo Galerus. Echinoneus minor. Echinolampas Koenigii. Echinobrissus Breynii Echinocorys Ovatus 70 Schizaster Atropos. Tentacula of Spatangus Purporeus. 13 Brissus ventricosus.

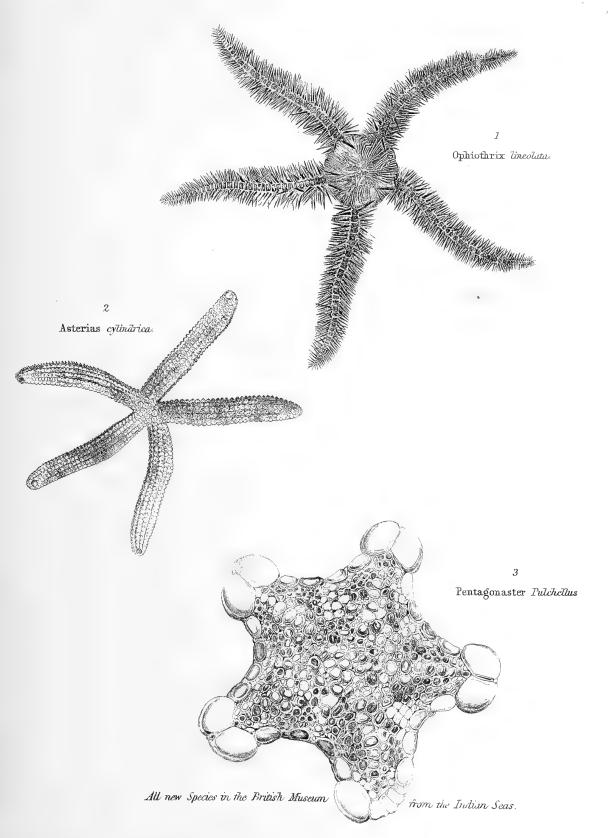


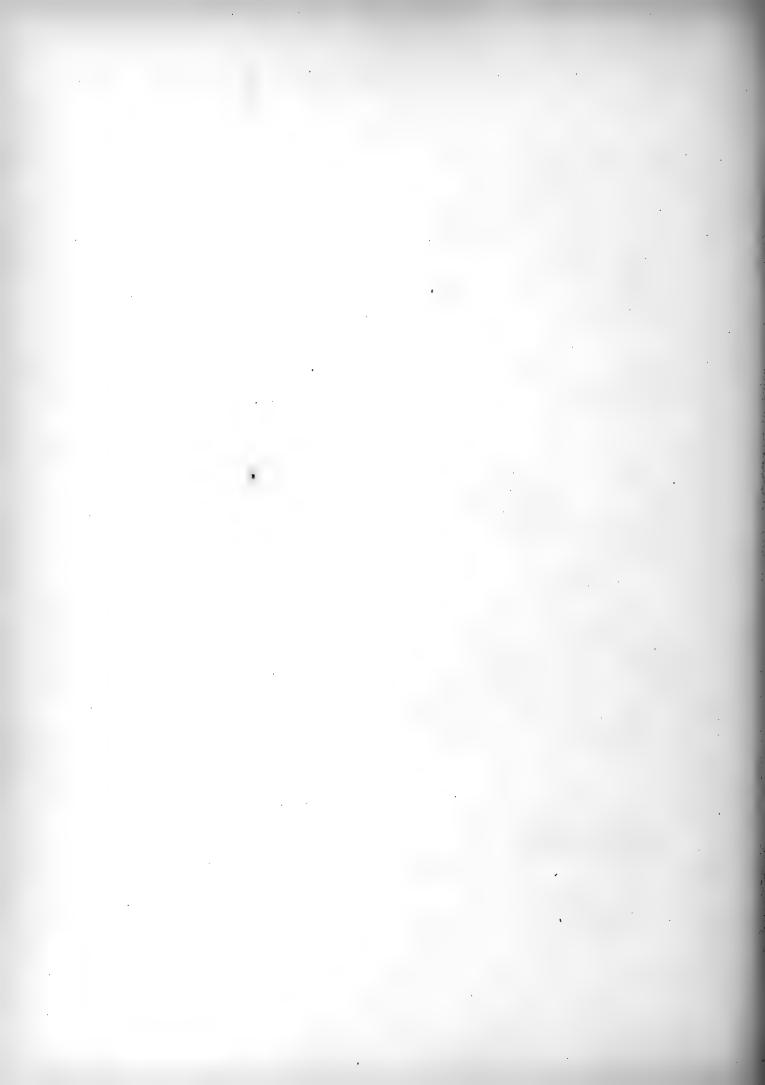


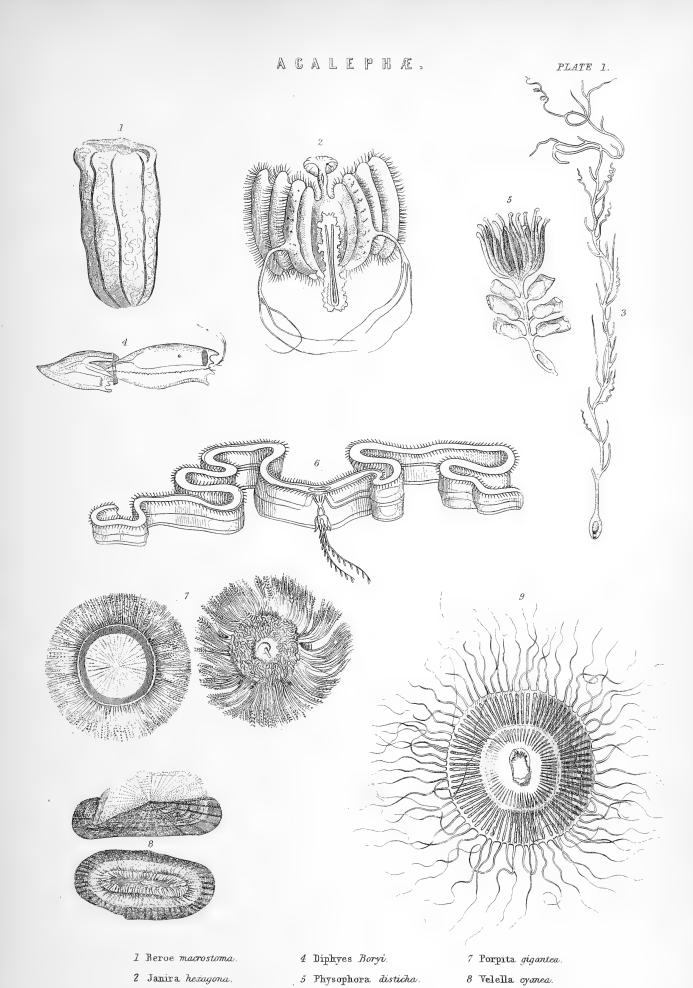


Order: Asteroidea.

Families Ophiurida.
Asteriida
Pentacerotida





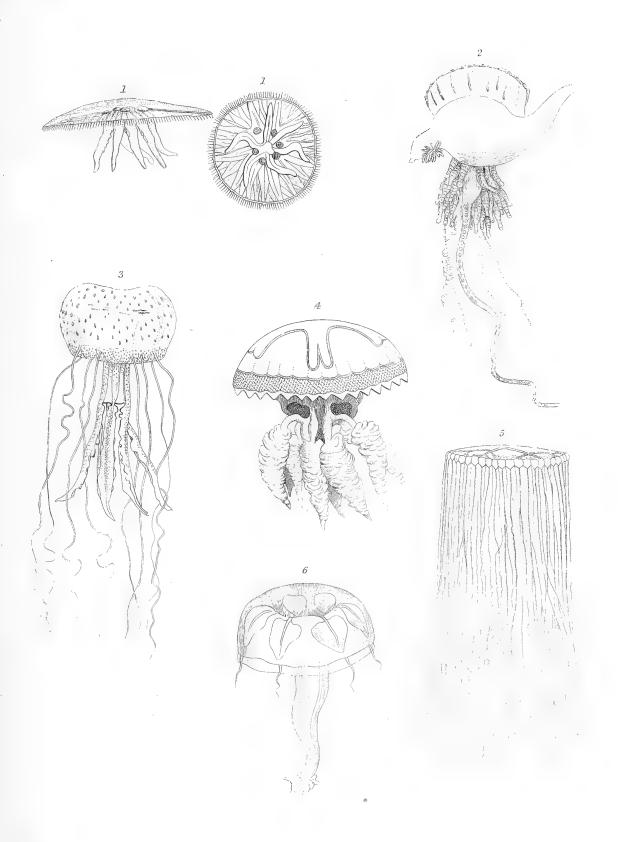


6 Cestum Veneris.

3 Rhizophysa planostoma.

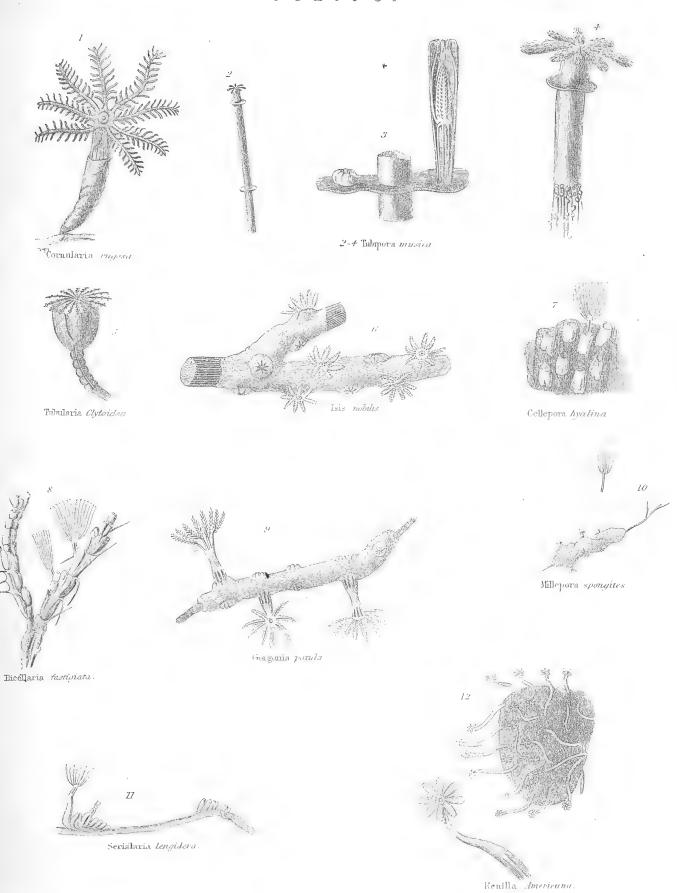
9 Æquorea Forskaelina.



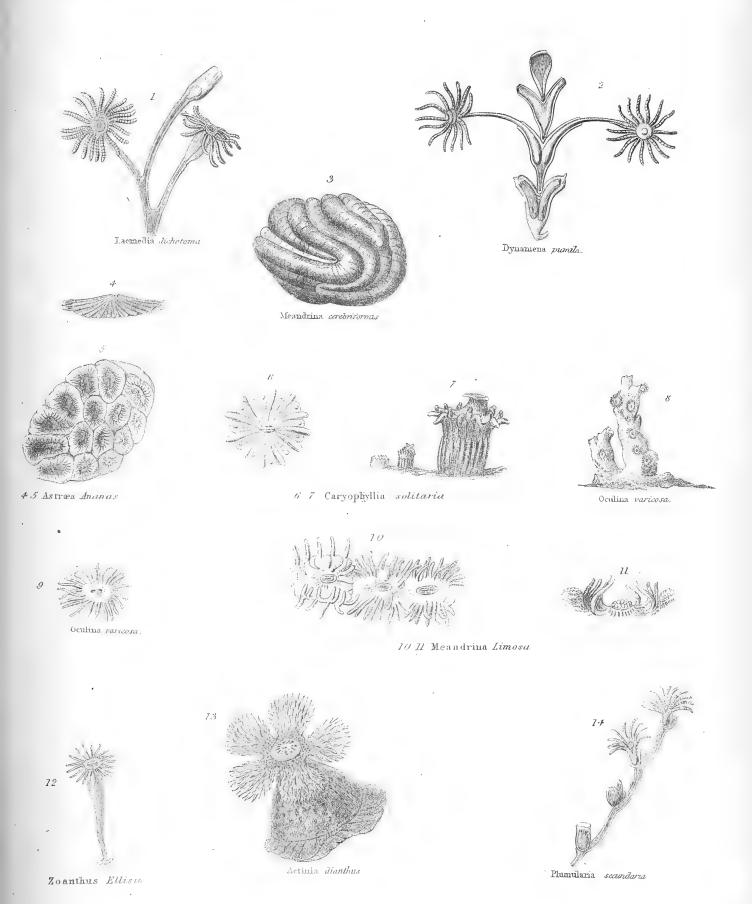


- I Gyanæa *merita*.
- 2 Physalia megalista.
- 3 Pelagia planospira.
- 4 Rhizostoma *Cuvierii*.
- 5 Berenice rosea.
- 6 Geronya-hexaphylla.

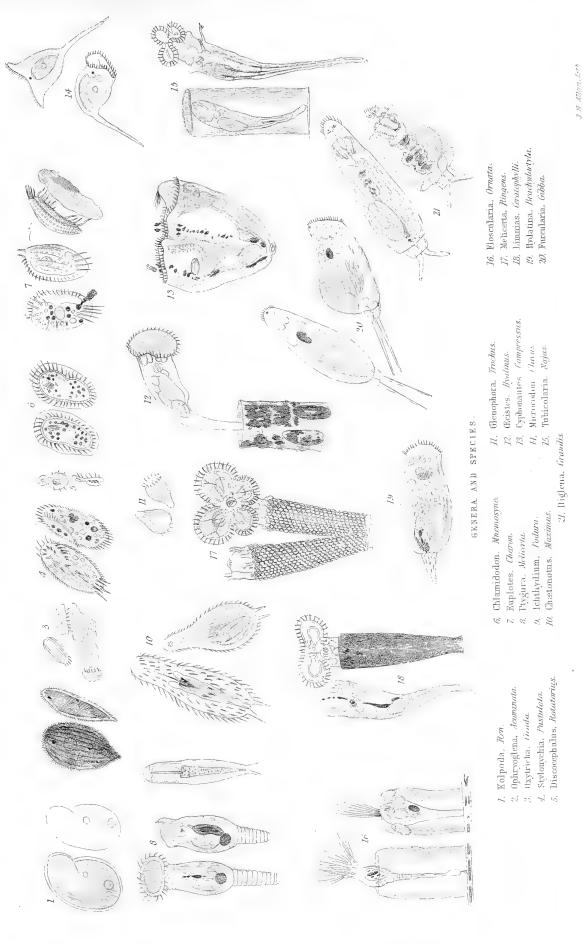
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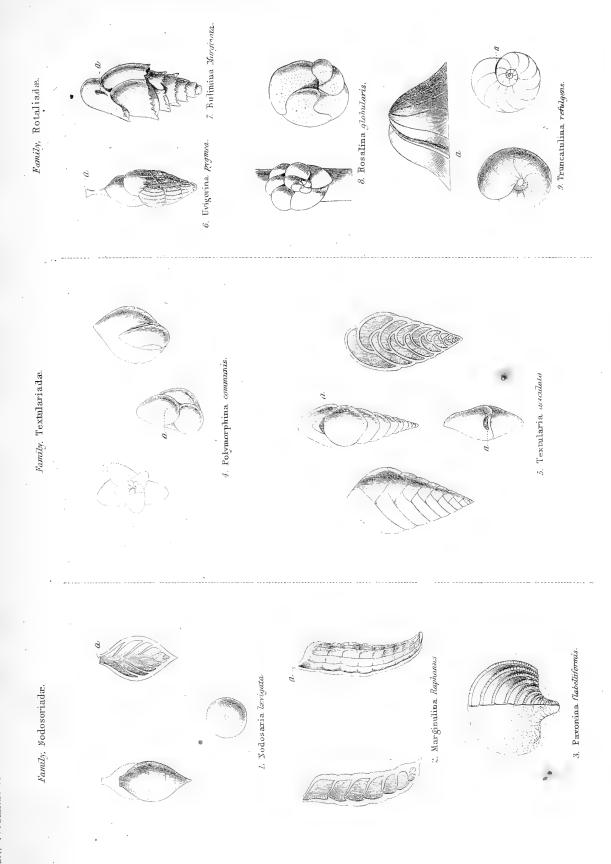
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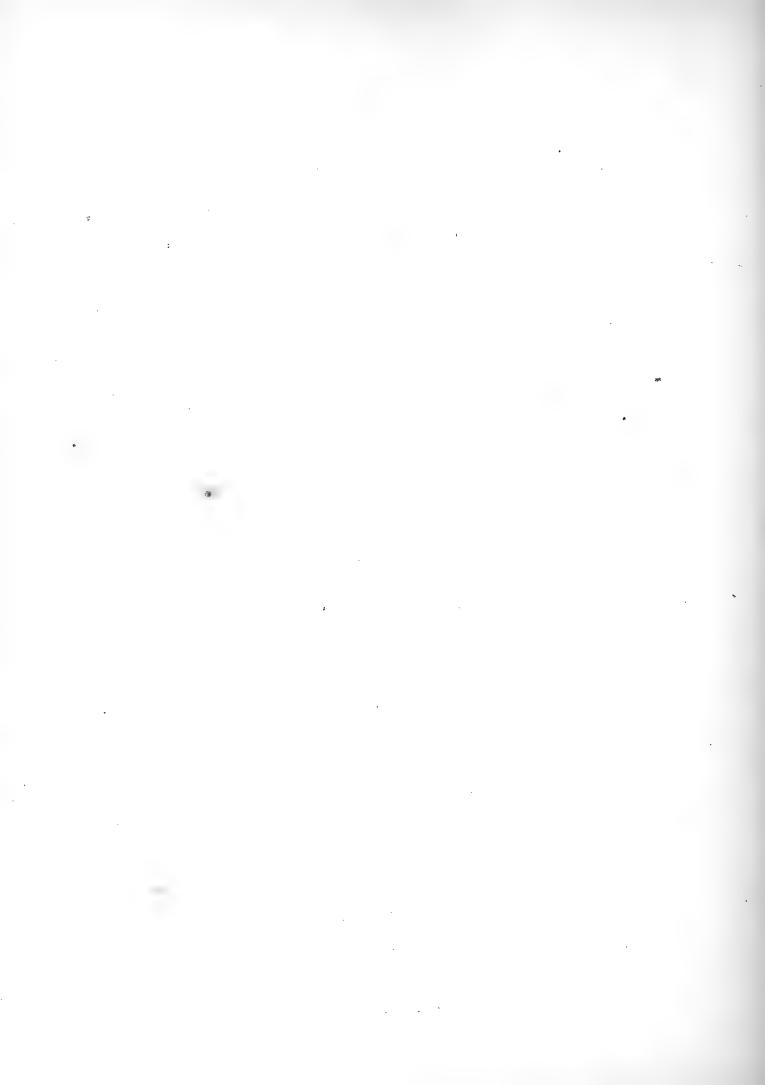
Orders Rotatoria, 8, to 21. Influsoria, I to 7.

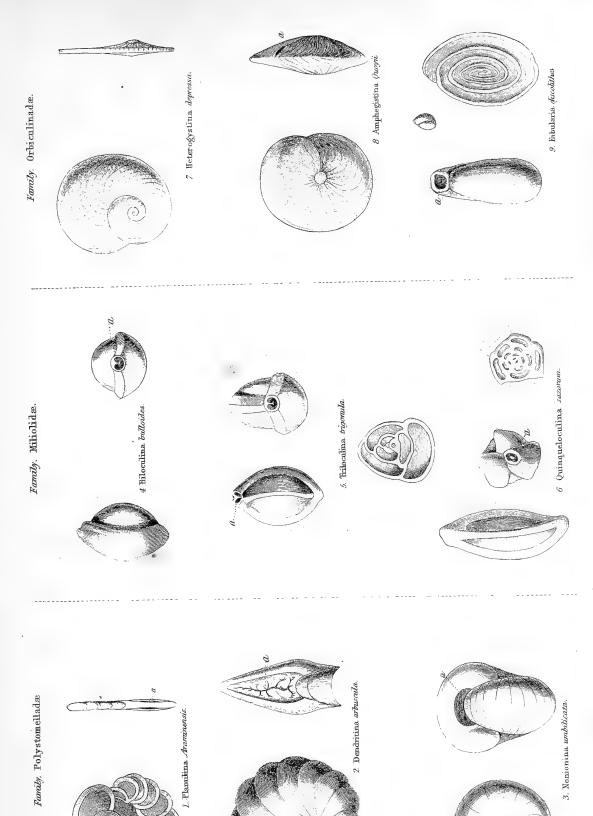






N.B. All these shells being very snall, they are all more or less magnified to all the figures. a represents the mouth and the dotted tines represent the theoretical form of the relis-





N.B. All these shells being very small they are all more or less mugnified in all the figures, a represents the mouth and the duted lanes represent the theoretical form of the cells.



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